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S/062/61/000/002/003/012  
B115/B207

AUTHORS: Ptitsyna, O. A., Reutov, O. A., and Ertel', G.

TITLE: Synthesis of organoantimony compounds by means of diaryl iodonium salts

PERIODICAL: Izvestiya Akademii nauk SSSR. Otdeleniye khimicheskikh nauk, no. 2, 1961, 265-270

TEXT: To synthesize organoantimony compounds, the authors used iodonium salts, a method which they had described earlier. To determine the optimum conditions, they decomposed both the double salt of diphenyl iodonium chloride and of antimony trichloride, as well as a mixture of  $(C_6H_5)_2ICl$  and  $SbCl_3$ . The double salt  $[(C_6H_5)_2ICl]_2 \cdot SbCl_3$  was prepared by pouring together the solutions of diphenyl iodonium chloride and of antimony trichloride. Independently of the ratio of initial components, it had the same composition. The double salt  $[(C_6H_5)_2ICl]_2 \cdot SbCl_3$  was decomposed with antimony powder in acetone or ethyl acetate at different temperatures and different ratios of reagents. X

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## Synthesis of organoantimony ...

The following table shows the results of this study:

Molecular ratio of the double salt and antimony	Reaction conditions	Time of reaction, in hr	Total yield of organoantimony compounds, in %
1 : 1.6	in acetone at room temperature	25	15
1 : 4.8	" "	55	33
1 : 3.0	in boiling acetone	3	63
1 : 4.8	in ethyl acetate at room temperature	55	38
1 : 4.8	in boiling ethyl acetate	6	22
1 : 4.8	" "	12	27

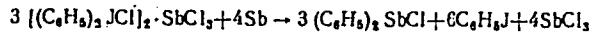
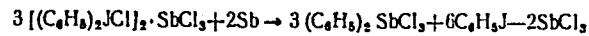
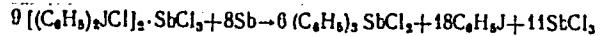
The yield was referred to the iodonium double salt used for the reaction. The table shows that boiling acetone is the best solvent.  
A mixture of organoantimony compounds:

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Synthesis of organoantimony ...



forms in the decomposition of the iodonium double salts by antimony powder just as in the decomposition of the double diazonium salts. The above-described method has the disadvantage that it is based on the preparation of iodonium double salts. The authors proved, however, experimentally in the present study that in the decomposition of mixtures  $(C_6H_5)_2ICl$  and  $SbCl_3$  with antimony powder in boiling acetone, the organoantimony compounds formed with the same yield as in the decomposition of the double salt  $[(C_6H_5)_2ICl]_2 \cdot SbCl_3$ . The decomposition of the  $Ar_2ICl$  and  $SbCl_3$  mixture by antimony in boiling acetone was further applied by the authors to the synthesis of organoantimony

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## Synthesis of organoantimony ...

compounds with other radicals. As it may be seen from Table 2, the diaryl iodonium chloride decomposition with antimony in the presence of  $SbCl_3$  leads to mixtures of organoantimony compounds in satisfactory

yield (60-70%). In this case, the organoantimony compounds are obtained by subjecting the diaryl iodonium double salts of antimony trichloride to decomposition. The authors base this assumption on the fact that when boiling the mixture of  $(C_6H_5)_2ICl$  and  $SbCl_3$  in

acetone in the absence of antimony powder, they obtained only a double salt only from the acetone solution of the following composition  $[(C_6H_5)_2ICl]_{1.8} \cdot SbCl_3$ . The salt obtained is very likely a mixture of two iodonium double salts  $(C_6H_5)_2ICl \cdot SbCl_3$  and  $[(C_6H_5)_2ICl]_2 \cdot SbCl_3$ .

Furthermore, the authors answered the question as to whether organometal compounds of antimony may be obtained by the interaction of diaryl iodonium chloride with antimony powder in the absence of antimony trichloride. They found that organoantimony compounds formed in the reaction of diphenyl iodonium chloride with antimony in acetone, that

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the yield, however, depended on the kind of antimony used. Thus, the yield was 28% when a fine-ground powder of metallic antimony was used. It was 24% when antimony prepared in the following way was used: An equimolar quantity of zinc powder was admixed to the solution of SbCl in dilute hydrochloric acid; the resulting precipitate was filtered off, washed out with dilute hydrochloric acid, water, and a sodium carbonate solution (to remove HCl traces), then washed again with water, alcohol, and ether, and dried in air. The yield in organoantimony compounds was 50% if the antimony thus prepared was used (but without sodium carbonate treatment). When decomposing  $(C_6H_5)_2ICl$  with fine-

ground antimony powder in the presence of hydrochloric acid traces, the authors obtained a 52% yield. On the basis of these data, they finally state that hydrochloric acid promotes the formation of organoantimony compounds in the decomposition of  $(C_6H_5)_2ICl$  with antimony. From the

mentioned data it may be seen that the decomposition of diphenyl iodonium chloride with antimony leads to the formation of organoantimony compounds. Thus, antimony trichloride favors this reaction. When diphenyl iodonium iodide was used instead of diphenyl iodonium chloride, the yield

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in organoantimony compounds fell considerably (9% as compared to 50%).  
There are 2 tables and 15 references: 7 Soviet-bloc and 8 non-Soviet-  
bloc.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: November 26, 1959

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Таблица 2

Разложение смеси  $\text{Ar}_3\text{SbCl}$  и  $\text{SbCl}_3$  порошком  
сурьмы в кипящем ацетоне

Соль йодония	1. Выход сурьмяноорганических соединений, %			
	$\text{Ar}_2\text{SbX}_1$	$\text{Ar}_2\text{SbX}_2$	$\text{Ar}_2\text{SbX}_3$	2. суммарный выход
$(\text{C}_6\text{H}_5)_3\text{SbCl}$	20	41	—	61
$(p\text{-ClC}_6\text{H}_4)_3\text{SbCl}$	15	41	43	69
$(p\text{-BrC}_6\text{H}_4)_3\text{SbCl}$	42	17	18	61,7
$(p\text{-CH}_3\text{C}_6\text{H}_4)_3\text{SbCl}$	22	29	8,5	59,5

Legend to Table 2: 1) Iodonium salt, 2) yield in organoantimony  
compounds, %, 3) total yield

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PTITSYNA, O.A.; REUTOV, O.A.; ERTEL', G.

Synthesis of antimony organic compounds via diaryliodonium salts.  
Izv. AN SSSR. Otd. khim. nauk no.2:265-270 F '61. (MIRA 14:2)

1. Moskovskiy gosudarstvennyy universitet im.M.V.Lomonosova.  
(Iodonium compounds) (Antimony organic compounds)

REUTOV, O.A.; PTITSYNA, O.A.; TURCHINSKIY, M.F.

Paper chromatography of diaryl organotin compounds and its use  
in the study of the products of reaction between asymmetric  
diaryliodonium salts and tin dichloride. Dokl. AN SSSR 139 no.  
1:146-149 J1 '61. (MIRA 14:7)

1. Moskovskiy gosudarstvennyy universitet im. M.V. Lomonosova.
2. Chlen-korrespondent AN SSSR (for Reutov).  
(Tin organic compounds) (Iodonium compounds)  
(Paper chromatography)

PITISYNA, O.A.

PITISYNA, O.A.; REUTOV, O.A.; OVODOV, Yu.S.

Synthesis of organobismuth compounds via diaryliodonium salts.  
Izv. AN SSSR Otd. khim. nauk no. 4:638-644 Ap '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Bismuth organic compounds) (Iodonium compounds)

PTITSYNA, O.A.; KOZLOVA, A.N.; REUTOV, O.A.; Prinimal uchastiye ERTEL',  
G., aspirant

Synthesis of organoantimony compounds via double diaryliodonium  
salts of antimony pentachloride. Izv.AN SSSR Otd.khim.nauk no.4:  
634-638 Ap '62. (MIRA 15:4)

1. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.  
(Antimony organic compounds) (Iodonium compounds)  
(Antimony chlorides)

3657

S/062/62/000/004/006/013  
B110/B101

5.3700

## AUTHORS:

Ptitsyna, O. A., Kozlova, A. N., and Reutov, O. A.

## TITLE:

Synthesis of organo-antimony compounds via diaryl iodonium double salts of antimony pentachloride

## PERIODICAL:

Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 4, 1962, 634-638

TEXT: Diaryl iodonium salts had been used by the authors already earlier (Dokl. AN SSSR, 114, 110 (1957); ibid., 122, 825 (1958); ibid., 122, 1032 (1958)) for synthesizing organometallic compounds of tin, mercury, bismuth, and antimony. The use of double salts of diaryl iodonium chloride and antimony pentachloride,  $\text{Ar}_2\text{ICl}\cdot\text{SbCl}_5$ , for synthesizing organo-antimony compounds has been studied here. They were obtained by pouring together the component solutions in concentrated HCl. The double salt was freed from acid and purified by dissolution in absolute acetone and precipitation with absolute ether. Products in quantitative yield:  
(1)  $(\text{C}_6\text{H}_5)_2\text{ICl}\cdot\text{SbCl}_5$  (A), m.p. 167-168°C; (2)  $(\text{p-CH}_3\text{C}_6\text{H}_4)_2\text{ICl}\cdot\text{SbCl}_5$  (B),

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m.p. 145-146°C; (3)  $(p\text{-ClC}_6\text{H}_4)_2\text{ICl}\cdot\text{SbCl}_5$  (C) m.p. 186-187°C;  
(4)  $(p\text{-BrC}_6\text{H}_4)_2\text{ICl}\cdot\text{SbCl}_5$  (D) m.p. 225-226°C; (5)  $(p\text{-CH}_3\text{OC}_6\text{H}_4)_2\text{ICl}\cdot\text{SbCl}_5$   
(E) m.p. 137-138°C. The double salts are colorless, crystalline,  
readily soluble in acetone, poorly soluble in benzene, and insoluble  
in ether and water. To find the optimum conditions for producing  
organo-antimony compounds, the decomposition of  $(\text{C}_6\text{H}_5)_2\text{ICl}\cdot\text{SbCl}_5$

with iron and antimony in benzene and acetone was investigated. With  
iron, the reaction in acetone proceeds slowly, diphenyl antimonic acid  
being formed in a quantity of 6%. With antimony, the reaction proceeds  
under heating, and the yield of organo-antimony compounds depends on  
the reaction time: 56% of diphenyl antimonic acid and 2.5% of  
diphenyl antimony oxide were obtained in 25 hrs, and 38% of diphenyl  
antimonic acid in 5 hrs. A, B, C, and D yielded the respective diaryl  
antimonic acids:  $2\text{Ar}_2\text{ICl}\cdot\text{SbCl}_5 + 2\text{Sb} \rightarrow \text{Ar}_2\text{SbCl}_3 + 3\text{SbCl}_3 + 2\text{ArI}$ ;  
 $\text{Ar}_2\text{SbCl}_3 + 3\text{NH}_4\text{OH} \rightarrow \text{Ar}_2\text{SbOOH} + 3\text{NH}_4\text{Cl} + \text{H}_2\text{O}$ . Yields: 56% from A,  
42% from B, 65% from C, and 46% from D. There are 2 tables.

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Synthesis of organo-antimony ...

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ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: November 2, 1961

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36638  
S/062/62/000/004/007/013  
B110/B101

J.3100

AUTHORS: Ptitsyna, O. A., Reutov, O. A., and Ovodov, Yu. S.

TITLE: Synthesis of organo-bismuth compounds via diaryl iodonium salts

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Otdeleniye khimicheskikh nauk, no. 4, 1962, 638-644

TEXT: Bismuth triaryl compounds in yields of 13-23% had earlier been obtained by the authors (Dokl. AN SSSR 122, 1032 (1958)) by decomposing asymmetric diaryl iodonium salts,  $\text{ArAr}'\text{ICl}$  and  $\text{BiCl}_3$ , on Bi powder in acetone. Now, an attempt was made to obtain them by decomposing symmetric diaryl iodonium salts:  $3\text{Ar}_2\text{ICl} + \text{BiCl}_3 + 3\text{Bi} \rightarrow 2\text{Ar}_3\text{Bi} + 3\text{ArI} + 2\text{BiCl}_3$ . An addition of 0.05 moles of  $\text{BiCl}_3$  per mole of iodonium salt was sufficient for decomposing  $(\text{C}_6\text{H}_5)_2\text{ICl}$  with Bi powder. Optimum conditions: iodonium salt -  $\text{BiCl}_3$  ratio of 2:1, threefold Bi

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excess, and use of acetone as a solvent. The use of boiling acetone and boiling benzene lowered the yield from 65 to 55% and from 25 to 5%, respectively, but raised the yield of diphenyl. Yields of syntheses from the respective iodonium salts:  $(C_6H_5)_3Bi$  = 65%,  $(p-CH_3C_6H_4)_3Bi$  = 42%,  $(p-CH_3OC_6H_4)_3Bi$  = 18.5%,  $(p-ClC_6H_4)_3Bi$  = 46%,  $(p-BrC_6H_4)_3Bi$  = 65%,  $(m-O_2NC_6H_4)_3Bi$  = 32%, and  $(m-C_2H_5OCOC_6H_4)_2BiCl$  = 36%.

At first, the decomposition is likely to yield mono- and diaryl derivatives of bismuth, which are symmetrized under the action of an aqueous ammonia solution:  $3Ar_3BiCl + 6NH_4OH \longrightarrow Ar_3Bi + 2Bi(OH)_3 + 6NH_4Cl$ ;  $3Ar_2BiCl + 3NH_4OH \longrightarrow 2Ar_3Bi + Bi(OH)_3 + 3NH_4Cl$ . This is supported by the following findings: (1) with di-m-carbethoxy-phenyl iodonium chloride, a diaryl derivative of bismuth was separated:  $(m-C_2H_5OCOC_6H_4)_2BiCl$ ; (2) when acetone is directly evaporated from the reaction mixture obtained after decomposition, the resulting oil contains some inorganic bismuth compounds insoluble in

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acetone. The HCl formed by the hydrolysis of  $\text{BiCl}_3$  with air moisture readily dearylates the compounds  $\text{Ar}_2\text{BiCl}$  and  $\text{ArBiCl}_2$ :  
 $\text{BiCl}_3 + \text{H}_2\text{O} \longrightarrow \text{BiOCl} + 2\text{HCl}$ ;  $\text{Ar}_2\text{BiCl} + \text{HCl} \longrightarrow \text{ArBiCl}_2 + \text{ArH}$ ;  
 $\text{ArBiCl}_2 + \text{HCl} \longrightarrow \text{BiCl}_3 + \text{ArH}$ . This explains the formation of the relevant aromatics. There are 3 tables.

ASSOCIATION: Moskovskiy gosudarstvennyy universitet im. M. V. Lomonosova  
(Moscow State University imeni M. V. Lomonosov)

SUBMITTED: November 21, 1961

Card 3/3

PTITSYNA, O.A.; LYATIYEV, G.G.; REUTOV, O.A.

Complexes of diphenyl iodonium boron fluoride with aromatic amines  
and pyridine. Izv. AN SSSR. Ser.khim. no.3:584-585 Mr '64.  
(MIRA 17:4)

l. Moskovskiy gosudarstvennyy universitet im. M.V.Lomonosova.

PTITSYNA, O.A.; TURCHINSKIY, M.F.; SIDEL'NIKOVA, E.A.; REUTOV, O.A.

Photochemical reaction between triphenylphosphine and diphenyl  
iodonium salts. Izv.AN SSSR.Ser.khim. no.8:1527 Ag '63.  
(MIRA 16:9)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.  
(Phosphine) (Iodonium compounds) (Photochemistry)

PTITSYNA, O.A.; PUDEXEVA, M.Ye.; BEL'KEVICH, N.A.; REUTOV, O.A., akademik

Photochemical reaction of triphenylphosphine arylation by diaryl  
iodonium fluoborides. Dokl. AN SSSR 163 no.2:383-385 Jl '65.

(MIRA 18:7)

1. Moskovskiy gosudarstvennyy universitet.

PTITSYNA, O. I.; PUDEVIVS, N. Y.; REUTOV, G. A., Skazka

Reactions between triphenylphosphine and fluoroborides of  
asymmetric salts of diaryl sodonium. Dokl. AN SSSR 153 no. 3  
582-585 N 165. (MFA 18-11)

1. Mezhevskiy gosudarstvenny universitet.

L 17628-66 EWT(m)/EWP(j)/T/ETC(m)-6  
ACC NR: AP6001729

DS/WN/RM  
SOURCE CODE: UH/0020/65/165/001/0838/0841

AUTHORS: Ptitsyna, O. A.; Pudeyeva, M. Ye.; Reutov, O. A. (Academician)

ORG: Moscow State University im. M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

TITLE: Investigation of the photochemical reaction between triphenylphosphine and iodonium diphenylfluoroboride

SOURCE: AN SSSR. Doklady, v. 165, no. 4, 1965, 838-841

TOPIC TAGS: chemical kinetics, solution kinetics, oxidation kinetics, chemical reaction kinetics, photochemistry, mercury lamp

ABSTRACT: The mechanism of the photochemical reaction between triphenylphosphine and iodonium diphenylfluoroboride was investigated. The investigation is an extension of previously published work of O. A. Ptitsyna, M. F. Turchinskij 1 dr. (Izv. AN SSSR, OKhN, 1963, 1527). The effect of various solvents and reagent mixture ratios on the product yield was determined. The radiation source in all experiments was a mercury lamp PRK-4. A reaction mechanism is proposed. Orig. art. has: 2 tables and 9 equations.

SUB CODE: 07/ SUBM DATE: 1984/6/ SOURCE REF: 001/ OTH REF: 002  
Cord 1/1

WDC: 547.539.4+547.558.1

L 06533-67 EWT(m)/EWP(j) RM

ACC NR: AP7000493

SOURCE CODE: UR/0020/66/168/003/0595/0598

PTITSYNA, O. A., PUDEVYEVA, M. Ye., REUTOV, O. A., (Academician) Moscow State University imeni M. V. Lomonosov (Moskovskiy gosudarstvennyy universitet)

"Thermal Reaction between Triphenyl Phosphine and Diphenyliodonium Fluoroboride"

Moscow, Doklady Akademii Nauk SSSR, Vol 168, No 3, 1966, pp 595-598

Abstract: A radical mechanism is proposed for the homolytic decomposition of diphenyliodonium fluoroboride in the reaction with nucleophilic reagents. The applicability of this mechanism to the formation of tetraphenylphosphonium fluoroboride during heating of triphenyl phosphine with tetraphenyliodonium fluoroboride was verified. The reaction conditions were varied to conduct each of the two processes, photochemical and thermal, separately. Approximately 50% yields were obtained for the separate reactions, as compared with a 90% yield for the reaction under normal conditions of the Makarova-Nesmeyanov reaction. The thermal and photochemical reactions were found to proceed according to a radical chain mechanism, not a heterolytic mechanism. In both of the separate reactions, the diphenyliodonium salt decomposes entirely, although tetraphenylphosphonium fluoroboride is obtained in only an approximately 50% yield. There is consequently a substantial "useless" decomposition of the diphenyliodonium salt, evidently due to a side reaction leading to benzene formation. Orig. art. has: 1 formula and 1 table. [JPRS: 37,023]

TOPIC TAGS: chemical decomposition, organic phosphorus compound

SUB CODE: 07 / SUBM DATE: 28Oct65 / ORIG REF: 003

Card 1/1 exp

UDC: 547.539.4 + 547.558.1

PTITSYNA, O.A.; PUDEYEVA, M.Ye.; REUTOV, O.A., akademik

Photochemical reaction between triphenylphosphine and diphenyl  
iodonium fluoboride. Dokl. AN SSSR 165 no.4:838-841 D '65.  
(MIRA 18:12)

1. Moskovskiy gosudarstvennyy universitet im. Lomonosova.

11(8)

SOV/29-59-3-10/23

AUTHOR: Ptitsyna, T.

TITLE: Solid Gasoline (Tverdyy benzin)

PERIODICAL: Tekhnika molodezhi, 1959, Nr 3, pp 22-23 (USSR)

ABSTRACT: In this article the author reports on solid gasoline, as a result of a visit to the laboratory of Professor B. I. Losev, Doctor of Technical Sciences, in the Institut goryuchikh iskopayemykh Akademii nauk SSSR (Institute of Combustible Minerals of the Academy of Sciences, USSR). Solid gasoline is particularly suited for transportation. It needs neither tare nor special storage. It may be stored even under the water, which is especially useful for navigation. Such submarine stores are no complicated plants but virtually moored gasoline briquettes. Thus, ships need not call at ports for fuel. Solid gasoline may be stored for a long time under any climatic conditions. It does not easily ignite, but burns in any weather and in any climate, even in the Antarctica at -87°. B. I. Losev has shown many letters by Arctic explorers, mountaineers and geologists, which praise the good properties of the new fuel and report under which difficult conditions it has proved its usefulness. Re-

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Solid Gasoline

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generation is used for tanking the engine. The briquettes are mechanically crushed and the fuel is squeezed by means of a press. The quality of this gasoline remains unchanged after regeneration, and there is only a negligible loss (2 - 3%). Regeneration is carried out by means of special machines - regenerators (Diagram). In addition, there are smaller devices which are installed in planes and cars. The capacity of these machines is automatically controlled. Solid fuels and other solid liquids are used in a large number of technical fields. Gasoline capsules made of gelatin or polyethylene were shown in Professor Losev's laboratory. This packing is, however, a little unfavorable because its volume is larger by 30% than that of liquid gasoline. The structure of solid gasoline in the form of a yellowish briquette recalls honeycombs. This highly concentrated emulsion consists of individual cells which are separated from one another by a solid wall. Emulsions are to be found everywhere in nature, but are usually unstable. One of the liquids is precipitated already after a short time. In order to stabilize an emulsion, a third component, i.e. a stabilizer should be added. Gasoline is such a fixed emulsion. Gasoline represents the interior phase of this emulsion, while the ex-

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Solid Gasoline

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terior one is formed by an aqueous solution of substances which pass into solid state after the action of certain reagents. Gasoline fills almost the whole space occupied by the briquette. Its weight amounts to 95% of that of the briquette. The composition of the substances which were to form the exterior phase was the most difficult problem in the production of solid gasoline. The emulsion is stabilized by casein and urea-form-aldehyde resin. But casein readily decomposes and urea-form-aldehyde resin renders the briquettes brittle. The best results were obtained by adding polyvinyl alcohol to this mixture. There are 2 figures.

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KAZITSYNA, L.A.; KUPLETSKAYA, N.B.; PIITSYNA, V.A.; REUTOV, O.A.

Electron spectra of binary diazonium salts of bivalent copper  
and cobalt. Zhur. ob. khim. 33 no.10:3243-3248 0 '63.  
(MIRA 16:11)

FILIPPOV, Sergey Ivanovich; ARSENT'YEV, Peter Pavlovich; PTITSYNA,  
V.I., red.izd.-va; EN'YAKOVA, G.M., tekhn. red.

[Experiments on the theory of metallurgical processes]  
Eksperimental'nye raboty po teorii metallurgicheskikh  
protsessov. Izd.2., perer. i dop. Moskva, Metallurgiz-  
dat, 1964. 165 p. (MIRA 17:2)

ZAYDEL<sup>1</sup>, A.N.; MALYSHEV, G.M.; PTITSYNA, Ye.A.

Spectroscopic measurement of electron temperatures using an  
"Alpha" apparatus. Zhur.tekh.fiz. 33 no.2:200-204 F '63.  
(MIRA 16:5)

1. Fiziko-tehnicheskiy institut imeni A.F.Ioffe AN SSSR, Leningrad.  
(Plasma (Ionized gases)) (Electrons) (Spectrum analysis)

ZAYDEL', A.N.; MALYSHEV, G.M.; MOSKALEV, Ye.I.; PTITSYNA, Ye.A.; SOKOLOVA, L.V.; CHASHCHINA, G.I.

Spectral investigations with the "Al'fa" installation. Part 2:  
Directed movement of ions. Zhur. tekhn. fiz. 30 no.12:1433-1436  
D '60. (MIRA 14:1)

1. Fiziko-tehnicheskiy institut AN SSSR i Nauchno-issledovatel'skiy  
institut elektrofizicheskoy apparatury.  
(Ions) (Plasma (Ionized gases))

S/057/63/033/002/010/023  
B108/B186

AUTHORS: Zaydel', A. N., Malyshov, G. M., and Ptitsyna, Ye. A.

TITLE: Spectroscopic measurement of the electron temperature in the "Alpha" machine

PERIODICAL: Zhurnal tekhnicheskoy fiziki, v. 33, no. 2, 1963, 200-204

TEXT: The plasma electron temperature in the Alpha machine was determined from the intensity ratio of several pairs of spectral lines pertaining to different degrees of ionization of oxygen, nitrogen, and carbon. The intensity ratios were determined from the time-base sweep of the spectra (resolution 0.3-0.4  $\mu$ sec) taken under the conditions (1)  $H_z = 180$  oe,  $U = 10$  kv,  $n = 350$  pulses and (2)  $H_z = 180$  oe,  $U = 15$  kv,  $n = 150$  pulses, in a hydrogen plasma ( $\sim 1 \cdot 10^{-4}$  mm Hg). The results were evaluated with the formula

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B108/B186

## Spectroscopic measurement of ...

$$kT_e = \frac{\Delta E_e - \chi_n}{2.3 \left[ \lg \frac{I_1}{I_2} - \lg \frac{A_{ki_1}}{A_{ki_2}} \cdot \frac{\sum_{n=1}^{n-1} A_{kn} f_{kn}}{\sum_{n=1}^{n-1} A_{kn_1}} \frac{f_{kn_1}}{f_{kn_2}} - \lg \frac{v_{ki_1}}{v_{ki_2}} - \lg \frac{E_{kn_1}}{E_{kn_2}} - 2 \lg \frac{\chi_H}{\chi_n} - \lg \frac{8.3 \cdot 10^6 n \cdot f_2}{g^2 f_1} - \lg \frac{kT_e}{\chi_n} \right]} \quad (3)$$

where the subscripts 1 and 2 indicate the spectral lines from ions with a degree of ionization of ( $i+1$ ) and  $i$ , respectively.  $A_{ki}$  is the transition probability,  $f_{0k}$  the oscillator strength,  $v_{ki}$  the frequency,  $E_B$  the excitation potential,  $I$  the intensity,  $\chi_H$  and  $\chi_n$  the ionization potential of hydrogen and of the given ion,  $n$  the main quantum number,  $\xi_n$  the number of electrons on the orbit with  $n$ . The factor  $g$  accounts for photorecombination on shells higher than  $n$ , while  $f_1$  and  $f_2$  are corrections for the cross sections of photorecombination and impact ionization. The Card 2/3

S/057/63/033/002/010/023  
B108/B186

Spectroscopic measurement of ...

results showed that the electron temperature rises with increasing degree of ionization. The considerable deviations from the Maxwellian velocity distribution of the electrons can be explained by the simultaneous emission from ions of different degrees of ionization. Also the varying of the emission with time may affect the results. There are 1 figure and 1 table.

ASSOCIATION: Fiziko-tehnicheskiy institut im. A. F. Ioffe AN SSSR,  
Leningrad (Physicotechnical Institute imeni A. F. Ioffe  
AS USSR, Leningrad)

SUBMITTED: February 23, 1962

Card 3/3

MAL'TSEV, M.G.; PTITSYNA, Ye.A.; TAGANOV, K.I.

Some physical characteristics of the contact-electric spark  
selection of a sample for spectrum analysis. *Fiz.sbor.*  
no.4:252-255 '58. (MIRA 12:5)

1. Gosudarstvennyy ordena Lenina opticheskiy institut imeni  
S.I.Vavilova.  
(Spectrum analysis)

26.2322

87459  
S/057/60/030/012/006/011  
B019/B056

AUTHORS: Zaydel', A. N., Malyshev, G. M., Moskalev, Ye. I.,  
Ptitayna, Ye. A., Sokolova, L. V., and Chashchina, G. I.

TITLE: Spectral Examinations With "Al'fa" Research Installation.  
II. Directed Ion Movements

PERIODICAL: Zhurnal tekhnicheskoy fiziki, 1960, Vol. 30, No. 12,  
pp. 1433 - 1436

TEXT: Directed ion movements in "Al'fa" were measured by determining the spectral line shift of ions caused by the Doppler effect. The experiments were carried out with a low-dispersion quartz spectrograph and a spectrograph of the type АФС-8 (DFS-8), having a dispersion of  $D = 6 \text{ Å/mm}$ . The pictures were taken in tangential direction and, part of the spectrum is shown in Fig.3. The ion velocities calculated from the line shift and the root-mean-square error are given in Table 1. As may be seen, the velocity of directed ion movement does not exceed  $10^6 \text{ cm/sec}$ , and increases with increasing ion charge. There are

Card 1/5

87459

Spectral Examinations With "Al'fa" Research S/057/60/030/012/006/011  
Installation. II. Directed Ion Movements B019/B056

3 figures, 1 table, and 5 references: 2 Soviet, 2 US, and 1 Swedish.

ASSOCIATION: Fiziko-tehnicheskiy institut AN SSSR (Institute of Physics and Technology of the AS USSR). Nauchno-issledovatel'skiy institut elektrofizicheskoy apparatury (Scientific Research Institute of Electrophysical Apparatus)

SUBMITTED: July 15, 1960

Card 2/5

87459  
S/057/60/030/012/006/011  
B019/B056

$H_z$ , spec.	$U$ , kv.	180		360		720	
		$V_H$	$V_{cp}$	$V_H$	$V_{cp}$	$V_H$	$V_{cp}$
C III	10	—	—	0.5 ± 0.1	—	—	—
	15	—	—	—	—	—	—
O III	10	0.3 ± 0.2	3.1	0.0 ± 0.1	3.4	0.2 ± 0.1	3.4
	15	0.3 ± 0.1	3.4	0.2 ± 0.1	3.3	0.3 ± 0.1	3.5
N IV—O IV	10	0.9 ± 0.1	6.0	0.3 ± 0.1	5.9	0.2 ± 0.1	5.3
	15	0.7 ± 0.1	5.6	0.6 ± 0.1	6.2	0.7 ± 0.1	5.7
O V	10	—	—	—	—	—	—
	15	1.0 ± 0.1	7.0	1.0 ± 0.1	8.4	0.9 ± 0.1	7.3

Table 1

Legend to Table 1:  $H_z$  in oe,  $U$  is the capacitor voltage in kilovolts,  $V_H$  is the velocity of the ions in  $10^6$  cm/sec units,  $V_{cp}$  is the root-mean-square error.

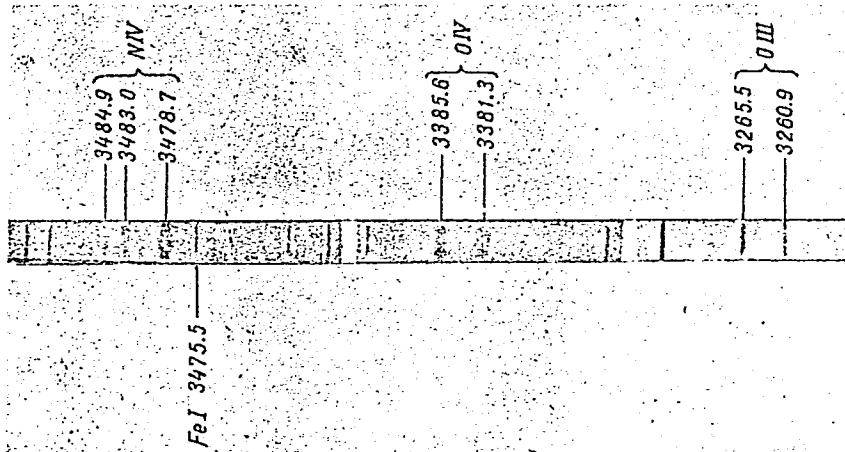
Card 3/5

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520004-9

87459

S/057/60/030/012/006/011  
B019/B056



Card 4/5

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520004-9"

87459

S/057/60/030/012/006/011  
B019/B056

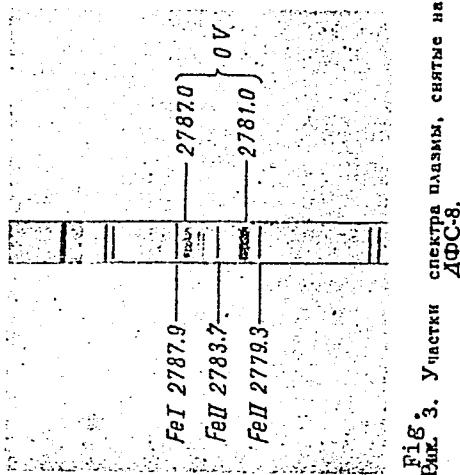


Рис. 3. Участки спектра плаэмы, снятые на АФС8.

Fig. 3

Card 5/5

L 01-44-67

ACC NR: AP6032441

SOURCE CODE: UR/0368/66/ 005/003/0288/0293

AUTHOR: Malyshev, G. M.; Ptitsyna, Ye. A.

ORG: none

TITLE: Filament image transducer

64  
B

SOURCE: Zhurnal prikladnoy spektroskopii, v. 5, no. 3, 1966, 288-293

TOPIC TAGS: fiber optics, image transducer, interferometer, Fabry<sup>+</sup>Perot interferometer, electron ~~amplifier~~, <sup>10</sup>electron optics

ABSTRACT: The operating principle of a fiber-optics image converter is described. The device consists of a light filter, a Fabry-Perot interferometer, an image converter, and an electron-optical amplifier. The system makes it possible to utilize light from the greater part of an interference pattern and to obtain a very high time resolution. The image converter consists of glass fibers 45 cm long and 0.1 mm in diameter. The input end of the bunch is mounted in a circular rim 20 mm in inside diameter. The end of the bunch is then sealed and polished. By illuminating diaphragms of various apertures, with the difference between the adjacent apertures corresponding to a selected fraction of the dispersion ring in an interference pattern to be projected on the input end through the interferometer, the fibers conveying light from each ring fraction can be identified. Starting with the smallest aperture the illuminated fibers are arranged in rectangles at the output end in the sequence

Card 1/2

UDC: 535.853

L 61244-67

ACC NR: AP6032441

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of their radial position. The width of the rectangles equals the width of the fractional ring. Each rectangle contains 350—380 fibers. The output end of the converter is in contact with the photocathode window of the electron-optical amplifier. By applying sawtooth voltage to the deflector plates of the amplifier, the illuminated rectangle on its screen is resolved in time, and the whole picture displays the wavelength vs. time relations in a square area. Because of obvious losses alone the converter's efficiency is evaluated as being no higher than 0.5. The measured efficiency in the case at hand was between 0.16 and 0.19, which is explained by imperfection of the end surface. An incandescent bulb with yellow, green, and blue filters was used as the light source. The results were practically independent of the color filter used. Orig. art. has: 3 figures and 5 formulas. [FP]

SUB CODE: 20/ SUBM DATE: 03Feb65/ ORIG REF: 003/ ATD PRESS: 5097

09/

hs

Card 2/2

"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520004-9

VITZYAA, Gunter A.

REUTOV, Oleg A., PTIZYAA, Olga A., and ERTEL, Gunter , (all of Moscow)

"Neue Darstellungsmethode Antimonorganischer Verbindungen,"  
Chemische Technik, No. 4, Apr 1958.

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520004-9"

Ptizyn, S.P.

- ✓ 249. On the carbohydrate metabolism in trichiniasis. S. P. Ptizyn. Trud. Blagoveschensk. med. Inst., 1955, I, 116-118; Referat. Zh. Biol., 1956; Abstr. No. 73497. — The glucose tolerance curve in men infected with *Trichinella* were similar to those observed in the diabetics. There is a relation between the degree of disturbance in carbohydrate metabolism and the severity of the disease. R. PEGLER (Russian)

PTOASHNIKOV, M.M.

Composition of the bases of the heavy fraction from coal tar. Zhur.  
prikl.khim. 34 no.3:700-703 Mr '61.  
(MIRA 14:5)  
(Coal-tar products)

SOV/2306

PHASE I BOOK EXPLOITATION

10(4,7); 25(1)

Akademiya nauk Ukrainskoy SSR. Institut metallozizki.  
Voprosy fiziki metallov i metallovedeniya (Problems in the Physics of Metals and Metallurgy) Kiev, Izd-vo AN Ukrainskoy SSR, 1959. (Series: Iss: Shornik nauchnykh rabot, Nr 9) Errata, slip inserted. 3,000 copies printed.

Ed. of Publishing House: V.L. Shchurko; Tech. Ed.: M.I. Terimova;  
Editorial Board: V.N. Svezhnikov, Academician, Academy of Sciences, Ukrainian SSR (Rep. Ed.); S.D. Gerasimov, Doctor of Physical and Mathematical Sciences; and I.Ye. Deltyarov, Doctor of Technical Sciences.

PURPOSE: This collection of articles is intended for scientific workers, aspirants, and engineers in the fields of the physics of metals, metallurgy, and metallurgy. It may also be useful to students of advanced courses in metallurgical and physical faculties.

COVERAGE: This collection of articles deals with the following topics: Effect of high-speed heating, heat treatment, deformations, and crystallization conditions on phase transformations, structures, and properties of metals and alloys; the effect of additional alloying components on volumetric and intercrystalline diffusion (in alloys); and the effect of repeated quench hardening and radioactive and ultrasonic treatment on the physical properties of alloys. No generalities are mentioned. References follow several of the articles.

Larikov, L.N., and I.O. Polikarpov. Problem of the Effect of Ultrasonics on Phase Transformations of Carbide Metals and Alloys 50

This article presents a study of the effect of ultrasonic treatment on the aging process of dual-alumin and an alloy composed of lead and 6 percent tin. Data obtained are presented in diagrams.

Ordinov, V.N. Effect of High-speed Heating on the Structure of Steel 54  
The author describes an experimental investigation in which special devices were used for the simultaneous recording of time, temperature, elongation, and changes of voltage and amperage. Data presented in the article were obtained at the Laboratory for Heat Treatment, Kievsky polytechnicheskiy institut (Kiev Polytechnical Institute), and at the Institut metallozizki, AN USSR (Institute for the Physics of Metals, Academy of Sciences, UkrSSR).

Ordinov, V.N. and V.I. Trefilov. Metastable Transformations in Eutectic Cu-Al Alloys 68  
The mechanism and kinetics of phase transformations are discussed in this paper. Simultaneous motion picture recording with cinematographic means of temperature made possible the accurate determination of all parameters investigated. The technique used in the experiment is described, and transformations are presented in the form of photographs and diagrams.

Ordinov, V.N., V.I. Trefilov, and A.S. Druzhininsky. Change in Mechanical Properties of Ti-Fe Alloys Due to Heat Treatment 82  
Low-alloy Ti-Fe samples (2.5mm. diameter, 22mm. long), sintered, forged, and machined, were used. Results are shown in diagrams.

Bartolenco, A.K., V.N. Ordinov, and V.I. Trefilov. Changes in Structure and Properties of Powder Titanium During Vacuum Rolling 89  
Samples of titanium (MPB) made at the Central'nyy nauchno-tekhnicheskiy institut Cherny metalurgii (Central Scientific Research Institute of Ferrous Metallurgy) and rolled in the laboratory vacuum mill here, were subjected to micro- and X-ray structural analysis and mechanical testing at room temperature. Results are discussed and conclusions drawn.

Ordinov, V.N., and V.T. Cherpkin. Phase Transformations in Carbon-free Iron Alloys During Electric Heating 98  
This article presents a study of changes from alpha to gamma iron dilatation, the critical point, and the Curie point for various iron base alloys (Fe-Cu, Fe-Ni, Fe-Mn, Fe-Cr, and Fe-Si) in the annealed as well as the quenched state at varying rates of temperature change (500 to 4000°C per second).

Card 7/12

PTUKHA, Mikhail Vasil'yevich, akademik; GRYAZNOV, V.I., red.;  
MELENT'YEV, A.M., tekhn.red.

[Studies on population statistics] Ocherki po statistike nase-  
leniya. Moskva, Gosstatizdat TsSU SSSR, 1960. 456 p.

(MIRA 14:6)

1. AN USSR, chlen-korrespondent AN SSSR.  
(Population—Statistics)  
(Russia—Statistics, Vital)

Ptukhov, N. p. "'A typical' growth of the epithelium of the bladder under the influence of the mechanical factor", Trudy Akad. med. nauk SSSR, Vol. I, 1949, p. 204-11  
--Bibliog: 23 items.

SO: U-111, 17 July 1953, (Letopis 'Zhurnal 'nykh Statey, No. 20., 1949)

PTOKHOV, M. P.

"The Histogenesis and Pathogenesis of Epithelial Tumors of the Urinary Bladder." Dr Med Sci, Inst of Oncology, Acad Med Sci USSR; Inst of Experimental Medicine, Acad Med Sci USSR, Leningrad, 1953. (RZhBiol, No 6, Nov 54)

Survey of Scientific and Technical Dissertations Defended at USSR Higher Educational Institution (11)

SO: Sum. No. 521, 2 Jun 55

ZHUDINA, A.I., PTOKHOV, M.P.

On the so-called living matter of tumors. Vop.onk.1 no.1:24-32  
'55. (MLRA 8:10)

1. Iz patologo-morfologicheskoy laboratorii Instituta onkologii  
AMN SSSR (zaveduyushchiy--chl.-korr. AMN SSSR prof. M.F.Glazunov,  
direktor instituta--chl.-korr. AMN SSSR prof.A.I.Serebrov)  
Leningrad, Kamennyy ostrov, 2-ya Berezovaya alleya, 3/5 Institut  
onkologii AMN SSSR.

(NEOPLASMS,  
living substance in)

PTOKHOV, M.P.

Tissue specificity of Shoppe virus [with summary in English]. Biul.  
eksp.biol. i med. no.7:93-96 Jl '57. (MIA 10:12)

1. Iz tsitologicheskoy laboratorii (zav. - prof. V.Ye.TSymbol  
[deceased]) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy  
chlen AMN SSSR prof. A.I.Serebrov), Leningrad. Predstavlena  
deystvitel'nym chlenom AMN SSSR prof. N.G.Khlopinym.

(VIRUSES, immunology,

Shoppe virus, tissue specificity (Eng))

PTOKHOV, M.P.

Growth and changes in tissue cultures of heart valve endothelium.  
Dokl. AN SSSR 116 no.3:501-503 S '57. (MIRA 11:2)

1. Institut onkologii Akademii meditsinskikh nauk SSSR. Predstavлено  
академиком Н.Н. Аничковым.  
(HEART--VALVES)

PTOKHOV, M.P.

Phagocytic properties of endothelium in cultures. Arkh. anat., gist. i  
embr. 8:75-83 '63. (MIRA 17:12)

1. Laboratoriya eksperimental'noy morfologii (zav. - deystvitel'nyy chlen  
AMN SSSR prof. N.G. Khlopin [deceased]). Institut onkologii AMN SSSR,  
Leningrad.

AYNBINDER, N.M.; NECHAYEVA, L.V.; PTOKHOV, M.P.

Cytologic examination of ascitic and pleural fluids in patients with malignant tumors of the ovaries for the purpose of diagnosis and prognosis. Vop. onk. 11 no.8:31-37 '65.

(MIRA 18:11)

1. Iz ginekologicheskogo otdeleniya (zav. - prof. V.P.Tobilevich) i tsitologicheskoy laboratorii (zav. - doktor med.nauk M.P. Ptokhov) Instituta onkologii AMN SSSR ( direktor - deystvitel'nyy chlen AMN SSSR prof. A.I.Serebrov).

PTOKHOV, M.P.(Leningrad, P-136, ul. Lenina, 32/66,kv.26)

Changes in the endothelium of the heart valves caused by injury.  
Arkhiv. anat., glist.i embr. 43 no. 9:88-96 S '62. (MIRA 17:9)

1. Laboratoriya eksperimental'noy morfologii (zav. - deystvitel'nyy  
chlen AMN SSSR prof. N.G.Khlopin [deceased]) Instituta onkologii  
AMN SSSR.

PTOKHOV, M.P. (Leningrad, K-156, pr. Engel'sa, d.28, kv.178).

Effect of the Rous virus on endothelial explants. Vop onk.  
8 no, 10:42-48 '62. (MRA 17:7)

1. Iz laboratorii eksperimental'noy morfologii (zav. - deystvitel'nyy chlen AMN SSSR, prof. N.G.Khlopin [deceased])  
Instituta onkologii AMN SSSR (direktor - deystvitel'nyy chlen  
AMN SSSR, prof. A.I.Serebrov).

PTOKHOV, M.P. (L-156, prospekt Engel'sa, 28, kv.188, Leningrad)

Effect of human papilloma virus extracts on rabbit endothelial explants. Vop. onk. 9 no.6:34-41 '63. (MIRA 17:8)

1. Iz laboratcrii eksperimental'noy morfologii (zav. - deystvitel'nyy chlen AMN SSSR prof. N.G. Khlopin [deceased]) Instituta onkologii AMN SSSR (dir. - deystvitel'nyy chlen AMN SSSR prof. A.I. Serebrov).

PTOKHOV, M. P. (Leningrad, pr. Engel'sa, 28, kv. 188)

Growth and changes in the elements of explanted giant-cell tumors.  
Vop. onk. 8 no.5:42-52 '62. (MIRA 15:7)

1. Iz laboratorii eksperimental'noy morfologii (zav. - deystv. chl. AMN SSSR, prof. N. G. Khlopin[deceased]) Instituta onkologii AMN SSSR (dir. - deystv. chl. AMN SSSR, prof. A. I. Serebrov)

(TISSUE CULTURE) (BONES--TUMORS)

PTOKHOV, M.P. (Leningrad, K-156, pr. Engel'ska, 28, kv.188)

Investigation of the action of extracts from human giant cell  
bone tumors on endothelium explants. Vop.onk. 8 no.8:68-70  
'62. (MIRA 15:9)

1. Iz laboratorii eksperimental'noy morfologii (zav. - deystv.  
chl. AMN SSSR, prof. N.G. Khlopin [deceased]) Instituta onko-  
logii AMN SSSR (dir. - deystvl chl. AMN SSSR, prof. A.I. Serebrov).  
(BONES—TUMORS) (CARCINOGENS)

PTOKHOV, M.P. (Leningrad, P-136, ul.Lenina, 32/66, kv.26)

Endothelium of the heart valves of a cat, dog and monkey.  
Arkh. anat., glist. i embr. 42 no.5:29-34 My '62. (MIRA 15:6)

I. Laboratoriya eksperimental'noy morfologii (zav. - deystviteльnyy  
chlen AMN SSSR prof. N.G. Khlopin [deceased]) Instituta onkologii  
AMN SSSR.

(HEART--VALVES)  
(ENDOTHELIUM)

PTOKHOV, M.P. (Leningrad, P-136, ul. Lenina, 32/66, kv. 26)

Problem of the structure of the endothelium of the heart valves.  
Arkh.anat.gist.i embr. 39 no.7:23-29 J1 '60. (MIRA 14:5)

1. Laboratoriya eksperimental'noy morfologii (zav. - deystvitel'nyy  
chlen AMN SSSR prof. N.G.Khlopin) Instituta onkologii AMN SSSR.  
(HEART—VALVES)

PTOKHOV, M. P.

20-3-41/46

AUTHOR:

Ptokhov, M. P.

TITLE:

Growth and Changes in Tissue Cultures of the Endothelium of Heart-valves (Rost i izmeneniya v tkanevykh kul'turakh endoteliya serdechnykh klapanov)

PERIODICAL:

Doklady AN SSSR, 1957, Vol. 116, Nr 3, pp. 501 - 503 (USSR)

ABSTRACT:

According to actual current views, endothelium is a variety of the connective tissue cells. It is assumed that endothelium, under experimental conditions, is converted into fibroblastes. The cells on the edges of the vessels which are counted among the reticulo-endothelial system, yield, on the contrary, fibroblastes and macrophages. Other authors derive endothelium from subendothelial connective tissues, a contention which is in return disputed by other researchers. The endothelium grows as membranes, ligaments and reticular structures in the tissue cultures of heartvalves of human embryos. Approximately the same phenomenon was observed in cultures of large veins and of the aorta of rabbit. It is underlined that the formation of reticular structures in itself does not yet signify a conversion of endothelium elements into connective tissue cells. Tissue cultures of endothelium of heart-valves of 3 months

Card 1/4

20-3-41/46

Growth and Changes in Tissue Cultures of the Endothelium of Heartvalves

to 2 years old rabbits were studied in the present elaborate investigation. Both the method and the texture of the heartvalves and their endothelium are described. The endothelium yielded with the growth the three mentioned main variants with the respective transitions. The division of the cells in the cultures was mitotic and they mostly had a nucleus, although also nucleusless sections of cytoplasm arose due to the strangulation of endothelium cells. The cells have the capacity to emerge from the plane of the main layer. With their long out growths they jump across the neighbouring elements or continue to grow as membranes and ligaments in an other plane. This was observed with the culture of endothelium of large veins and with the reparative regeneration in the organism. Although the endothelium cells become small and flat, they are not converted into connective tissue cells. After having lost the connection with the neighbouring elements, they only temporarily get their external appearance. In those cases where the endothelium grow without touching each other with their lateral faces, the growth zone is more less disaggregated. The cells can unite on the peripherical sectors of this zone and can originate a typical endothelium membrane. The endothelium growth in tissue cultures differs from the growth of the connective tissue and has its characteristic features:

Card 2/4

20-341746

Growth and Changes in Tissue Cultures of the Endothelium of Heartvalves

the capacity of forming complex-structures and the existence of an intensively colored endoplasm, as well as a zone of light, almost entirely uncolored ectoplasm. In spite of their structural change, narrowing, and prolongation, the endothelium cells do not become connective tissue elements. With the endothelium of heartvalves the same variants occurred in the culture, as well as with larger veins and with the aorta. However, with the endothelium of heartvalve the disaggregation was more frequent and more distinctly marked. There are 4 figures, and 10 references, 9 of which are Slavic.

Card 3/4

20-3-41 /46

Growth and Changes in Tissue Cultures of the Endothelium of Heartvalves

ASSOCIATION: Institute of Oncology of Academy of Medical Sciences USSR  
(Institut onkologii Akademii meditsinskikh nauk SSSR)

PRESENTED: May 24, 1957, by N. N. Anichkov, Academician

SUBMITTED: May 21, 1957

AVAILABLE: Library of Congress

Card 4/4

PTOKHOV, M.P.

Modification of transitional epithelium in reparative regeneration  
[with summary in English] Biul. eksp. biol. i med. 43 no.2:98-101  
(MLRA 10:5)  
F '57

1. Iz laboratorii eksperimental'noy morfologii (zaveduyushchiy-deystvitel'nyy chlen AMN SSSR professor N.G. Khlopin) Instituta onkologii (direktor-chlen-korrespondent AMN SSSR professor A.I. Serebrov) AMN SSSR, Leningrad. Predstavlena deystvitel'nym chlenom AMN SSSR N.G. Khlopinym.

(EPITHELIUM,  
transitional in bladder regen.) (Rus)

(BLADDER, physiology,  
regen., form. of transitional epithelium) (Rus)

USSR/General Problems of Pathology - Tumors. General Problems. U.

Abs Jour : Ref Zhur - Biol., № 2, 1959, 8700

Author : Zhudina, A.I., Ptokhov, M.P.

Inst : -

Title : "The Living Substance" of Tumors

Orig Pub : Vopr. onkologii, 1955, 1, № 1, 24-32

Abstract : No abstract.

Card 1/1

- 16 -

PTOTSKIY, I. I.; TSERAYDIS, G.S.

Pathogenesis of seborrhea. Vest. vener., Moskva no. 6:53-54 Nov-Dec 1952.  
(CLML 24:1)

1. Professor for Pototskiy; Candidate Medical Sciences for Tseraidis.
2. Of the Clinic for Skin and Venereal Diseases Kuban' Medical Institute.

1. PTOTSKY, I.I.; TSEBRAUDIS, G.S.
2. USSR (600)
4. Skin - Diseases
7. Pathogenesis of seborrhcea. Vest. ven. i derm. no. 6, 1952
  
9. Monthly List of Russian Accessions, Library of Congress, March 1953. Unclassified.

COUNTRY	:	Yugoslavia		A-28
CATEGORY	:			
ART. JOUR.	:	RZEME, No. 21 1959, No.		76501
AUTHOR	:	Ptovic, P.		
INST.	:	Not given		
TITLE	:	The Sanitary Inspection and Control of Food Ad- ditives		
ORIG. PUB.	:	Tehnika, 14, No 1 (1959); Prehran Ind, 12, No 1, 1-4 (1959)		
ABSTRACT	:	No abstract.		

CARD: 1/1

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"APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520004-9

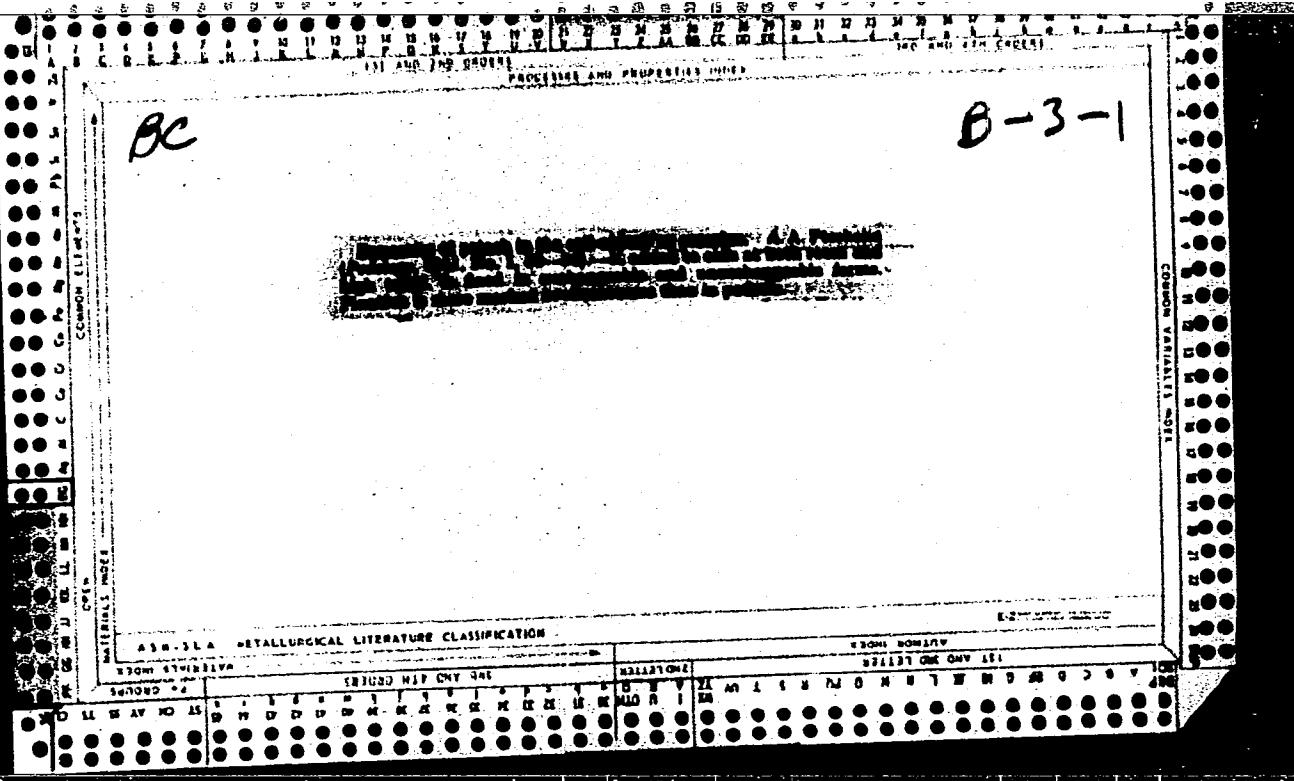
PTOYAN, G.M.

Cutting globoid worm gears on lathes. Mashinostroitel' no. 3216  
Mr '65. (MIRA 18:4)

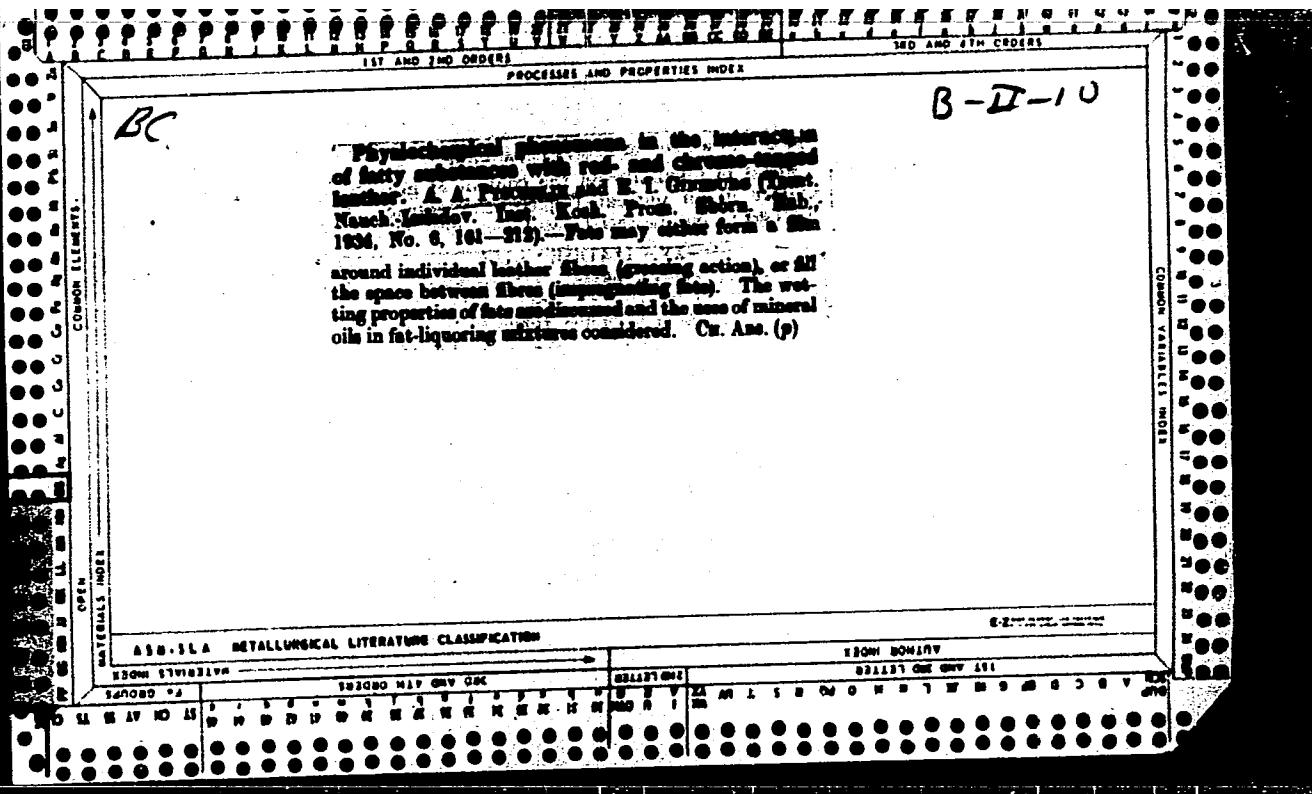
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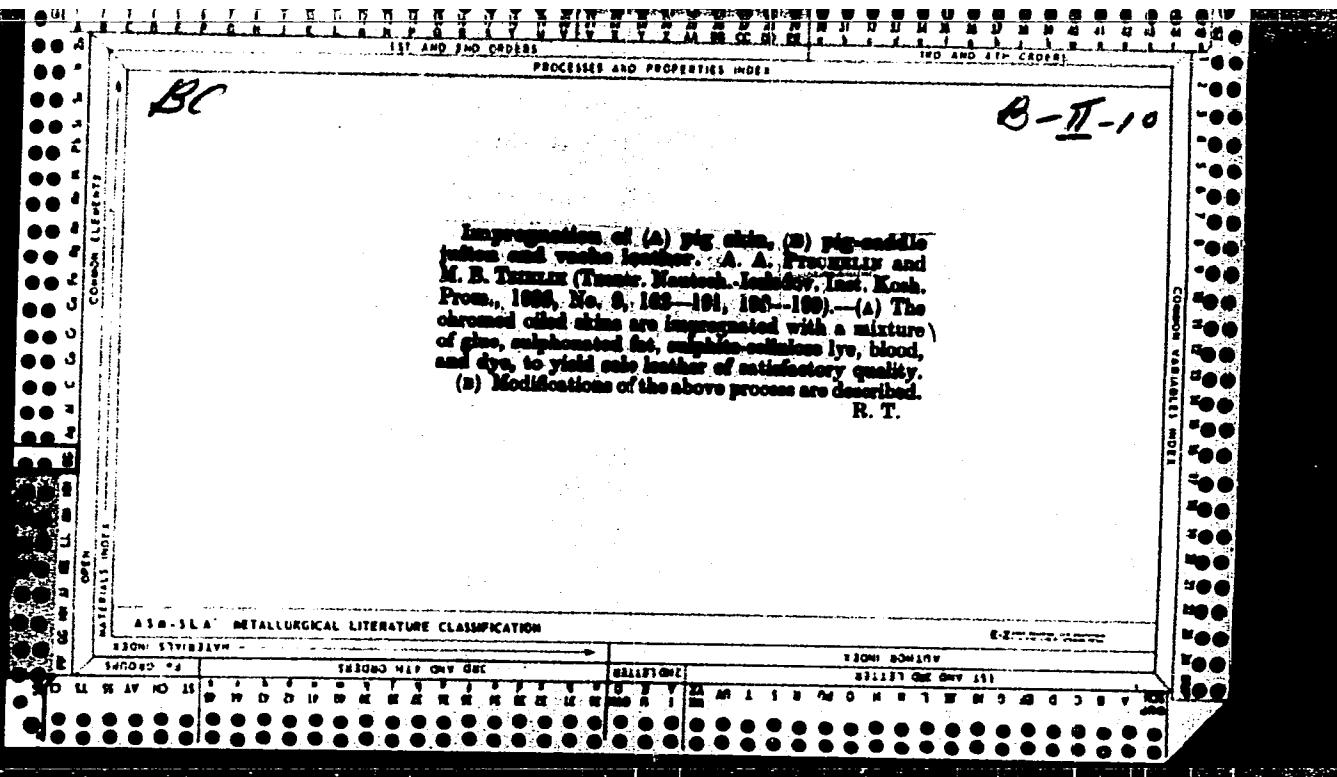
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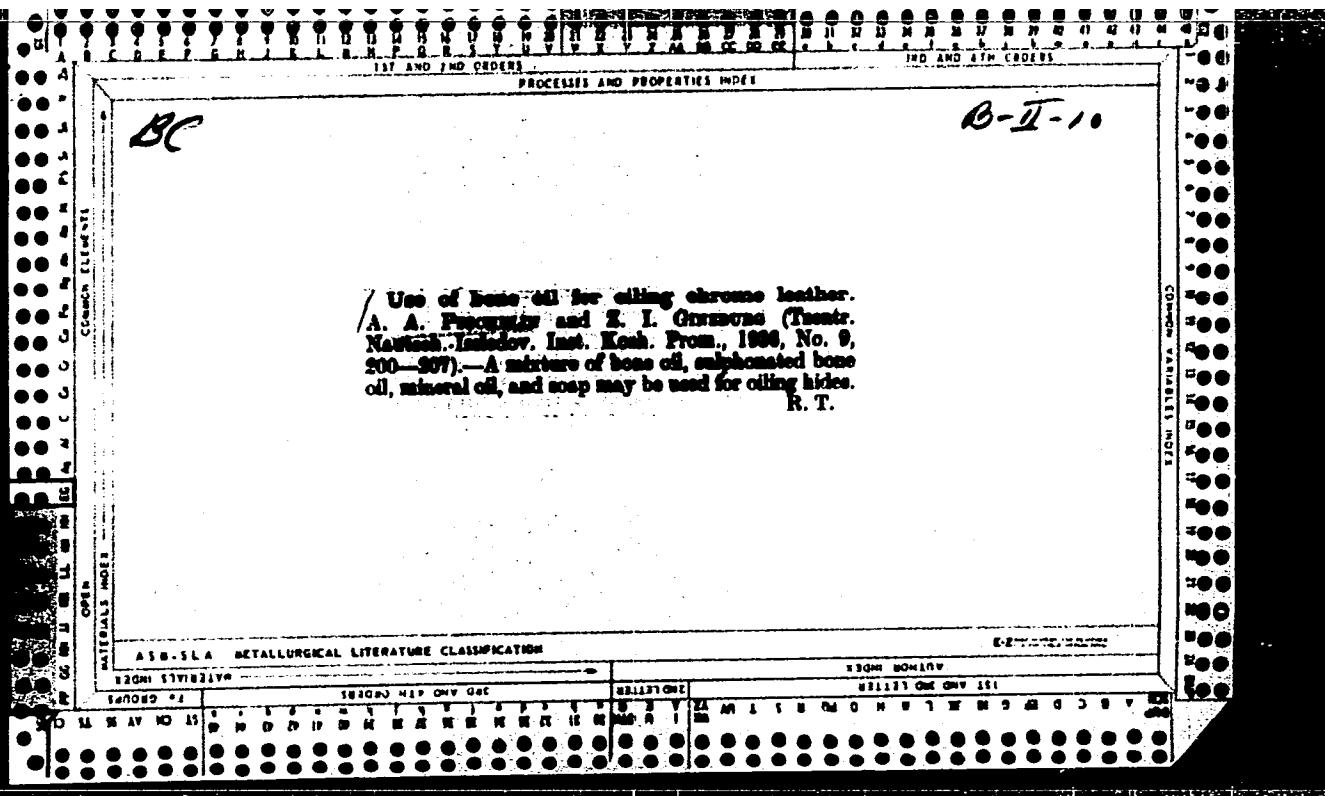
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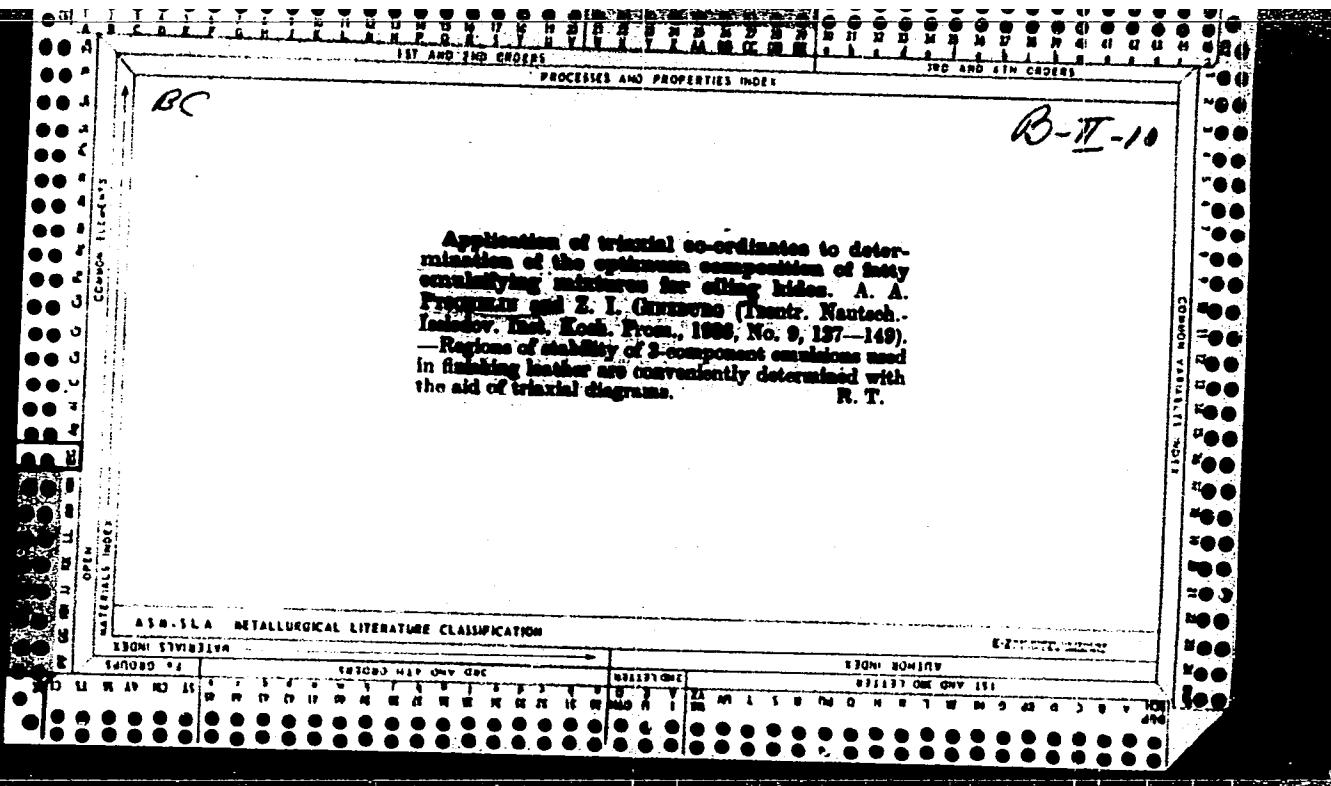


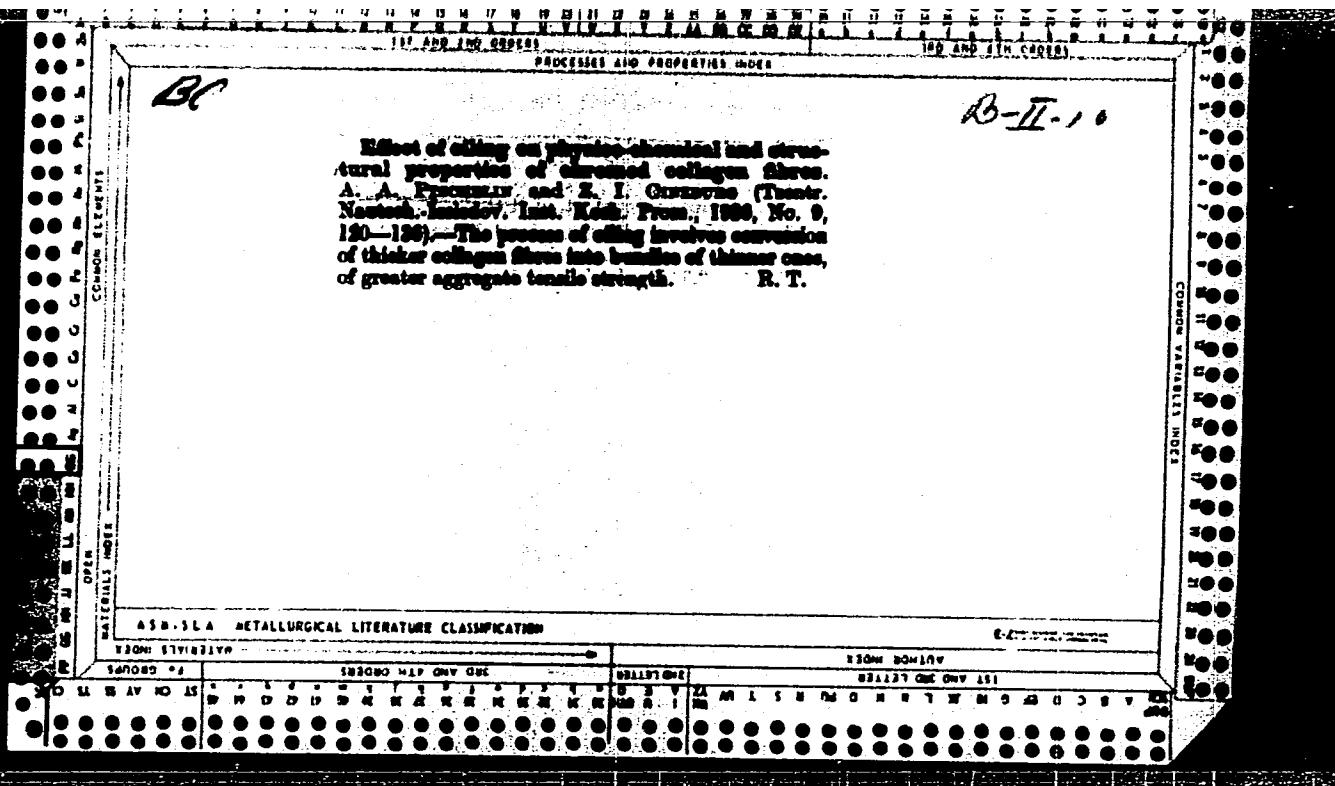
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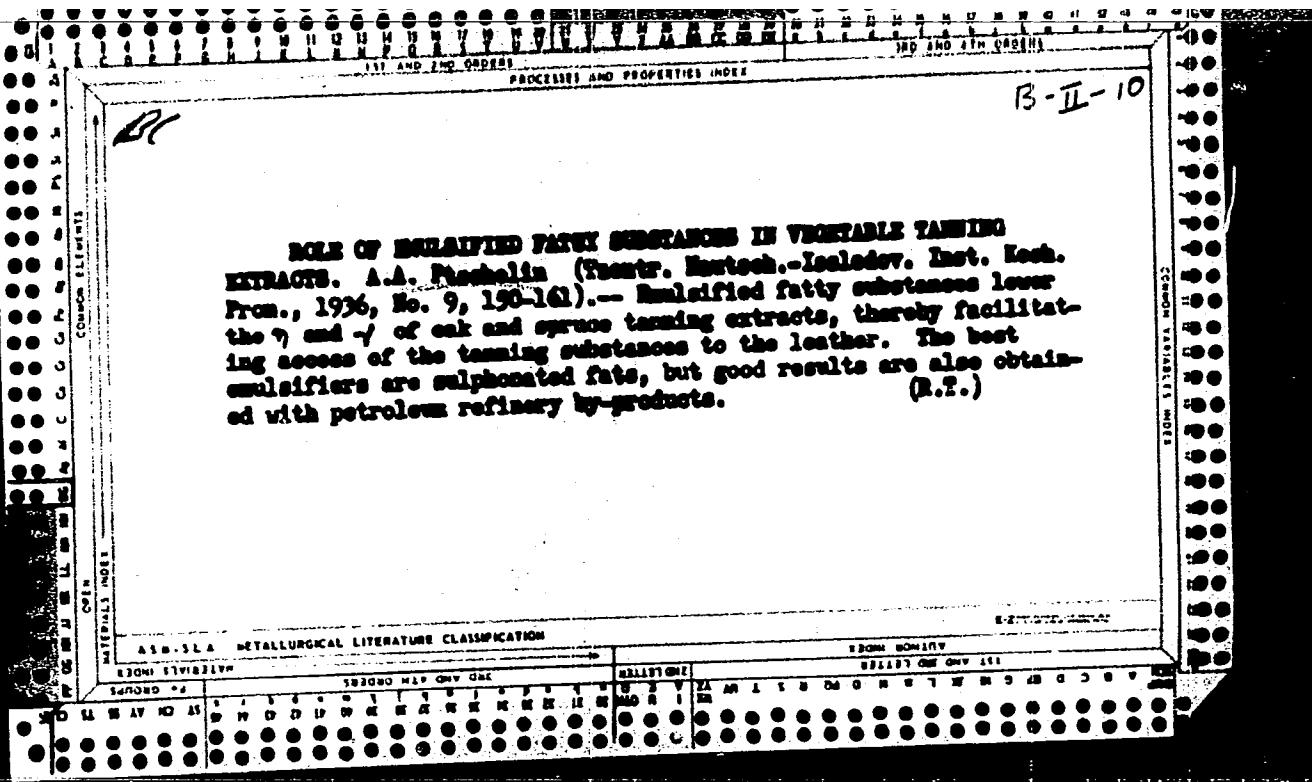


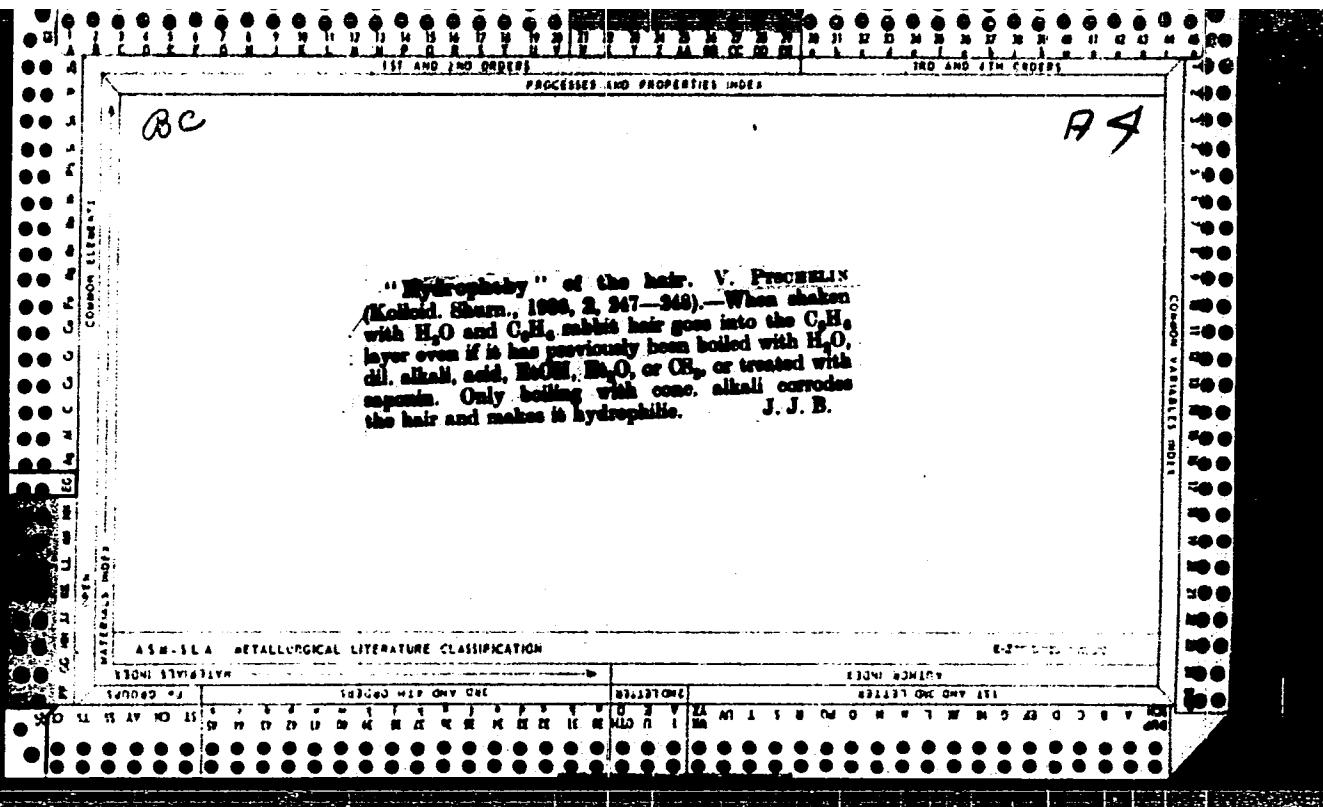


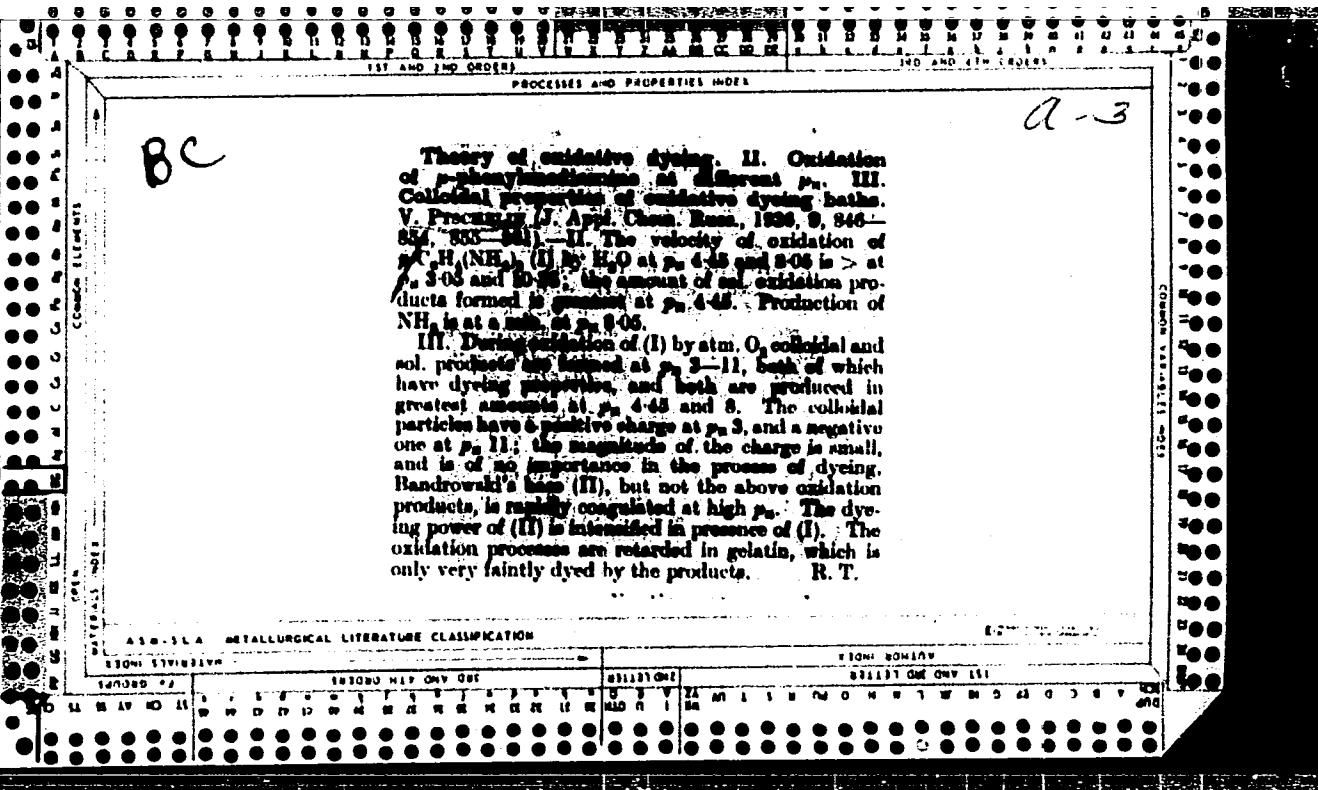


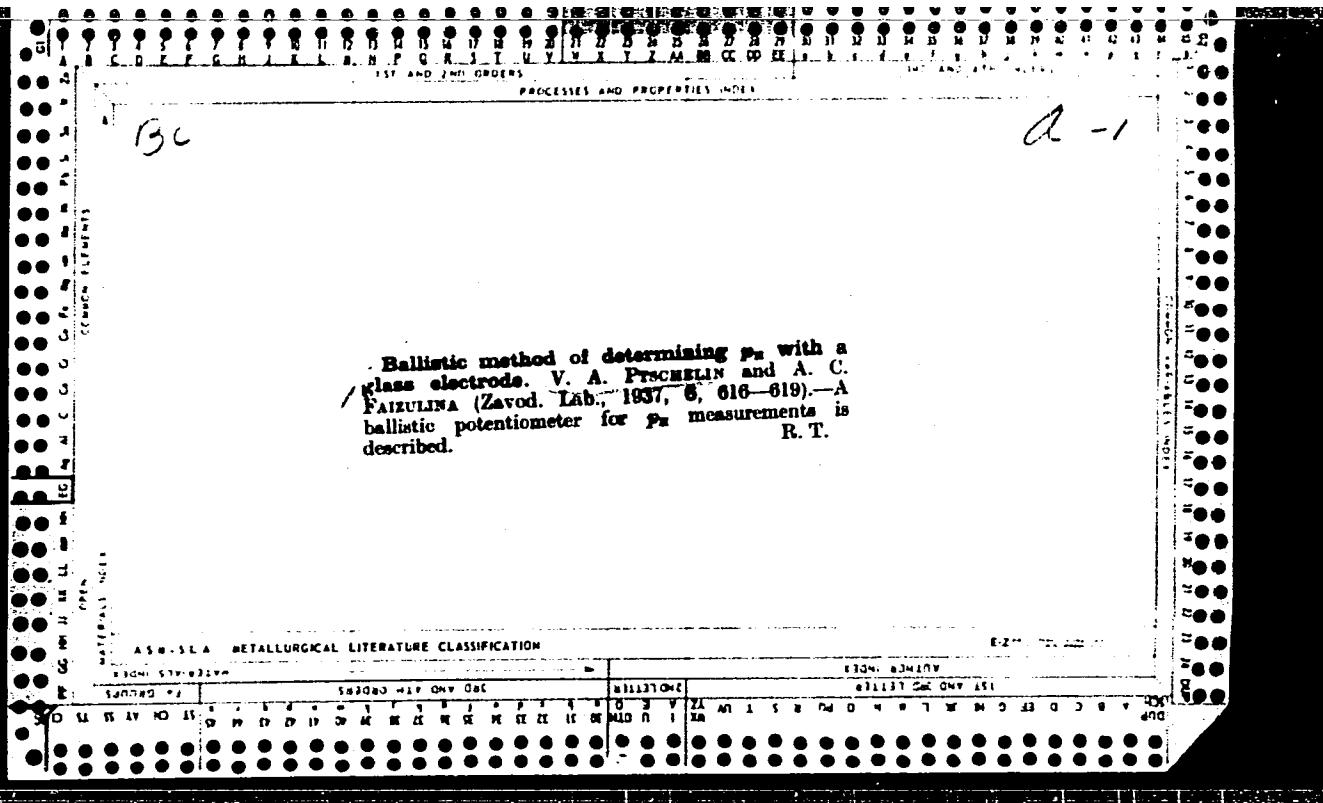


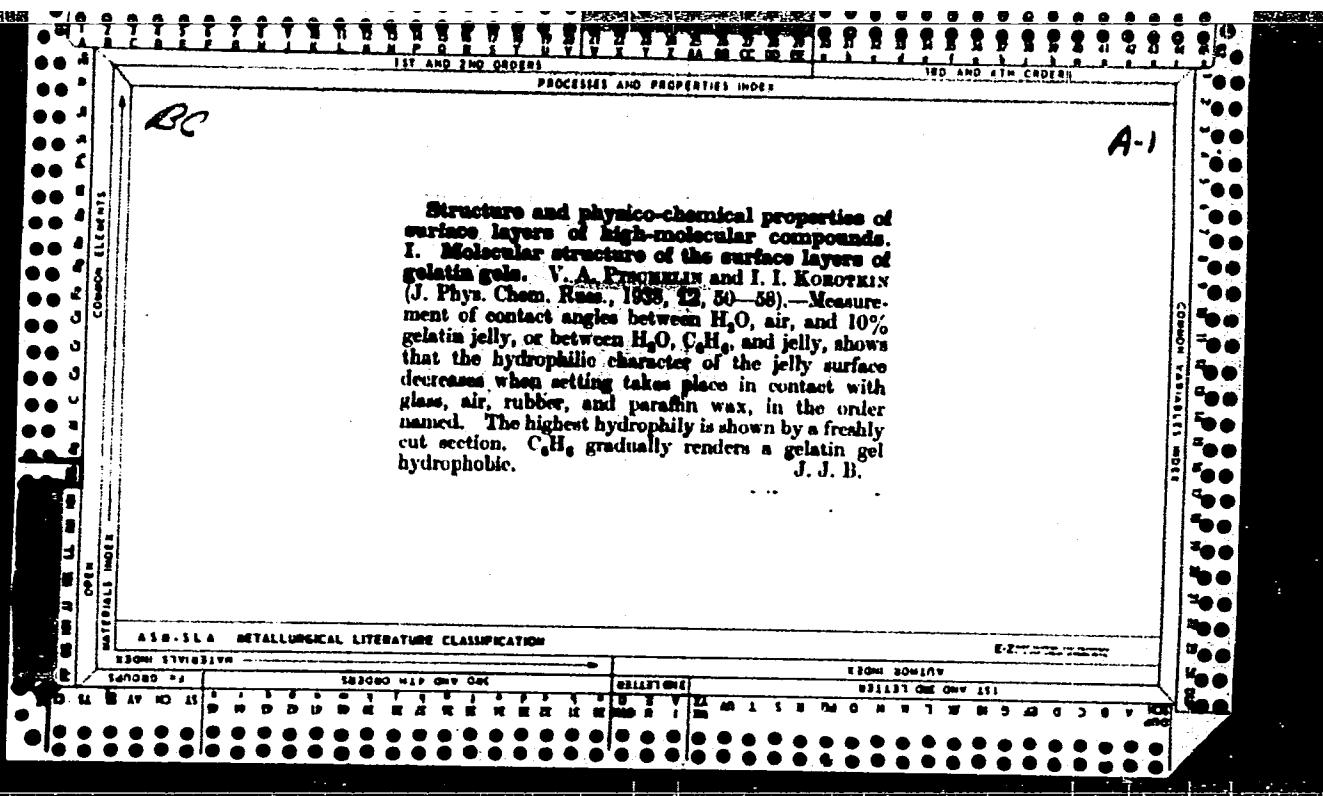


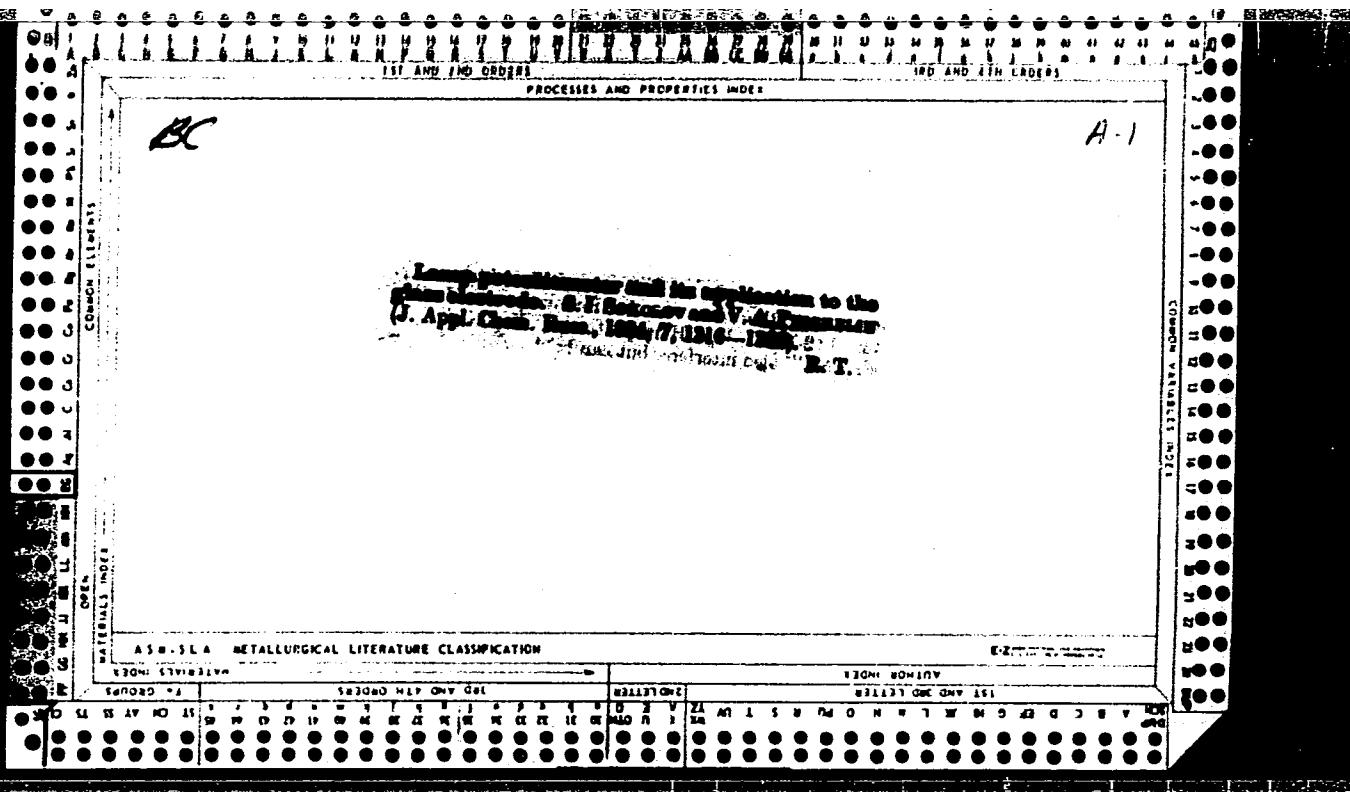


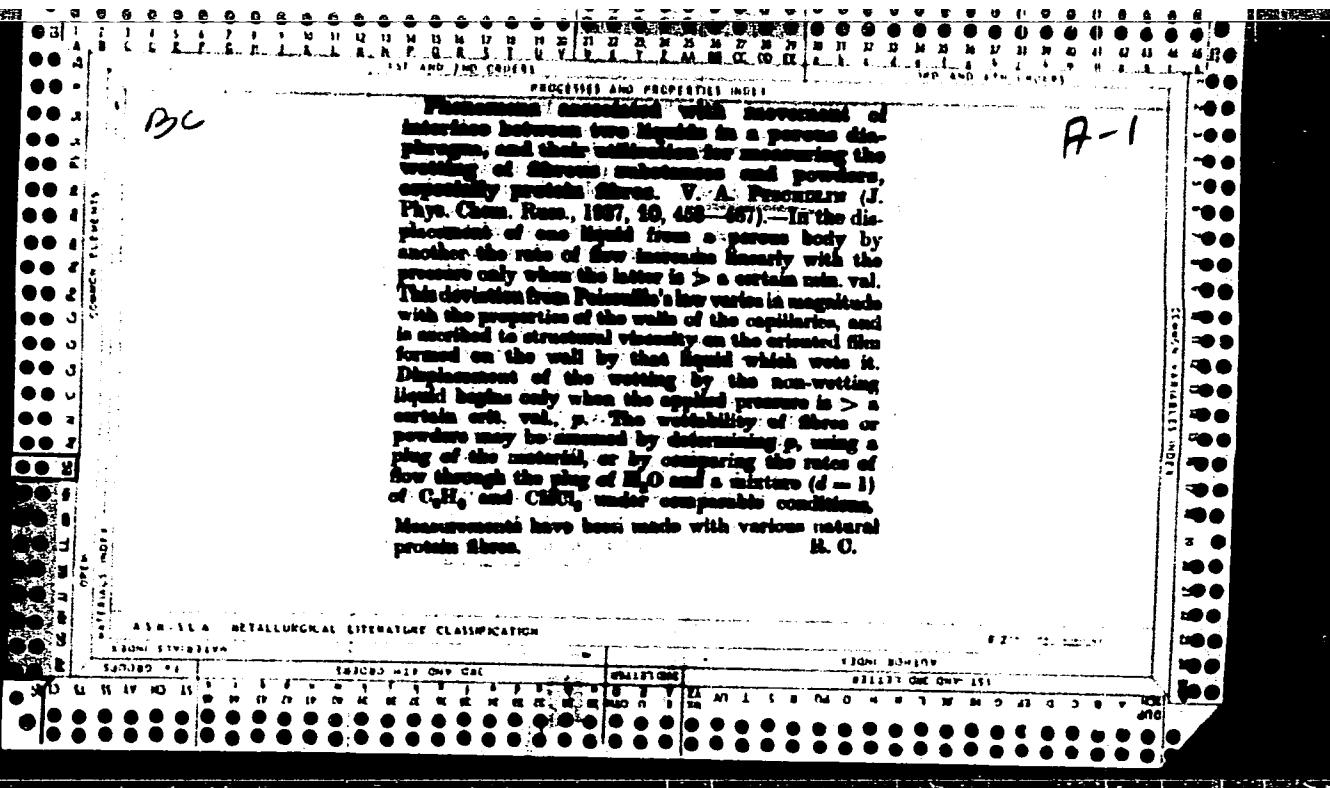


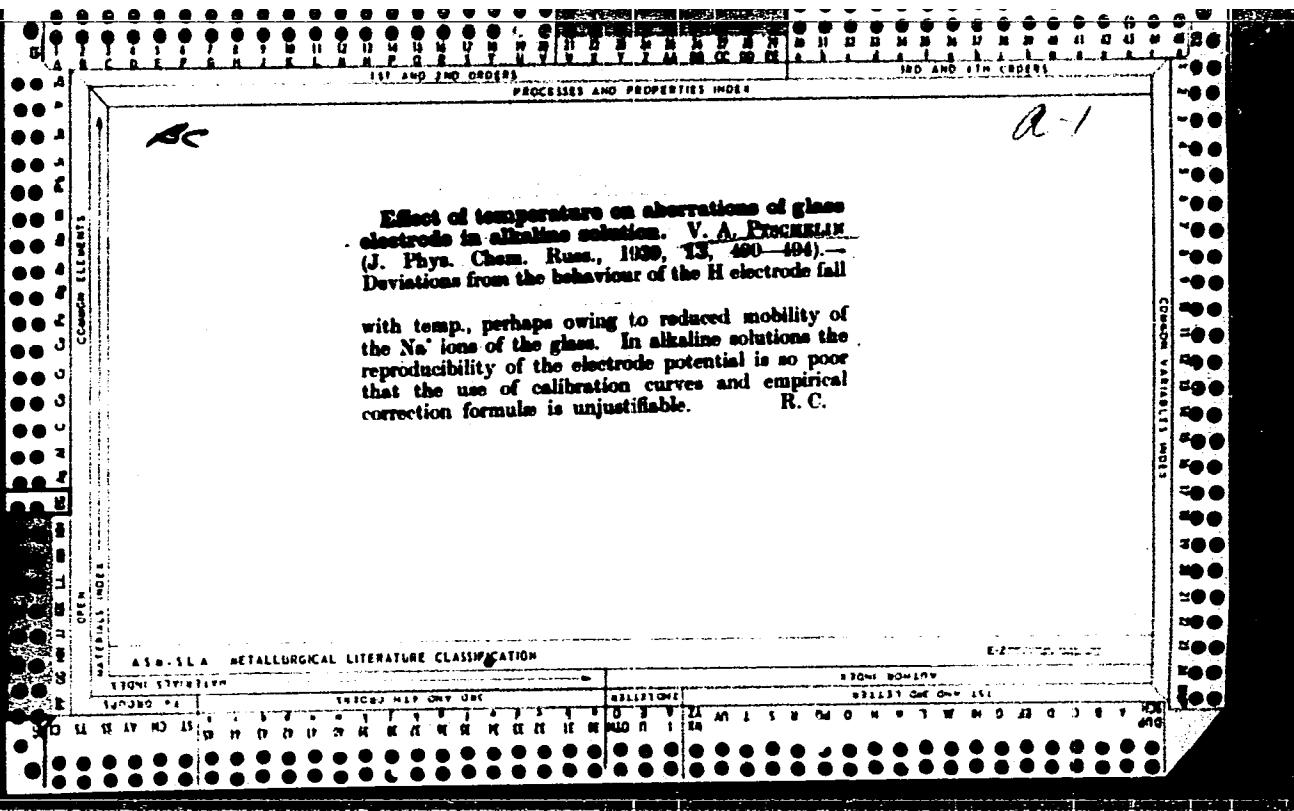










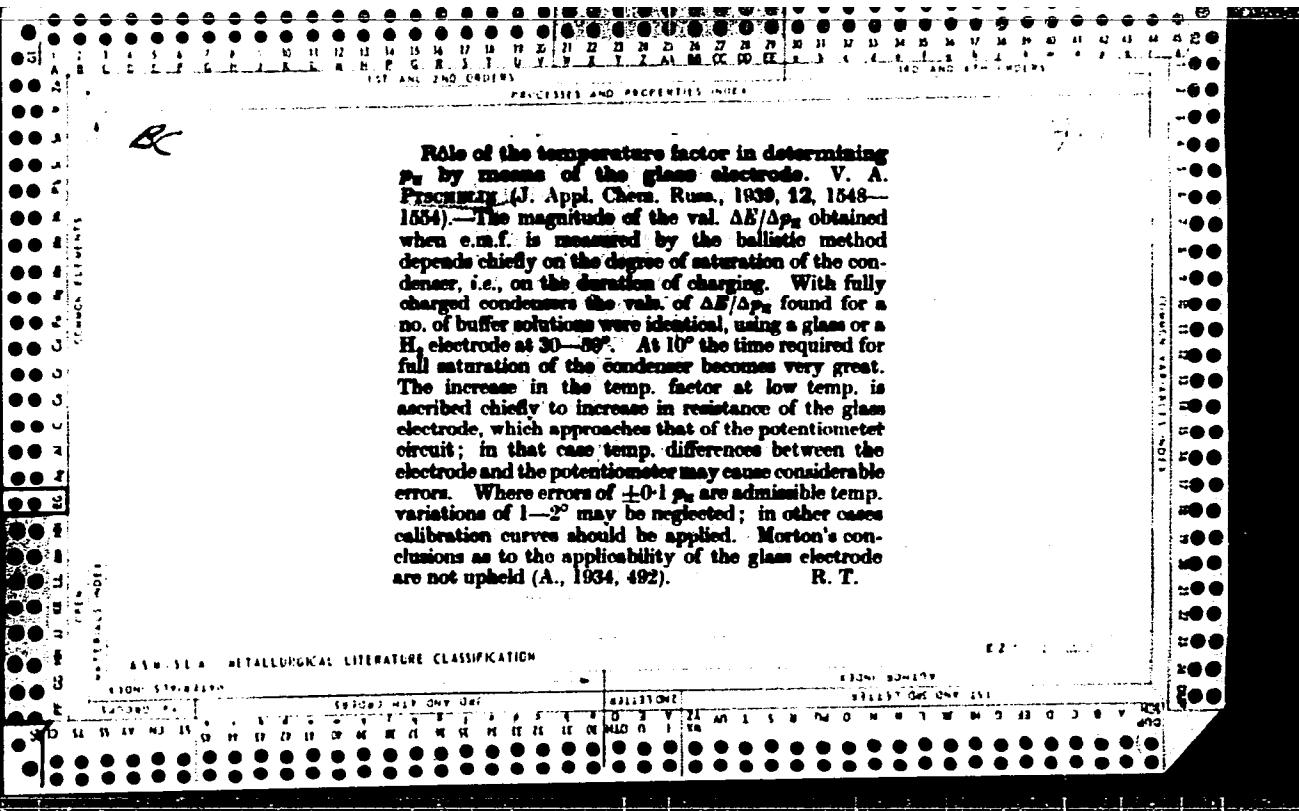


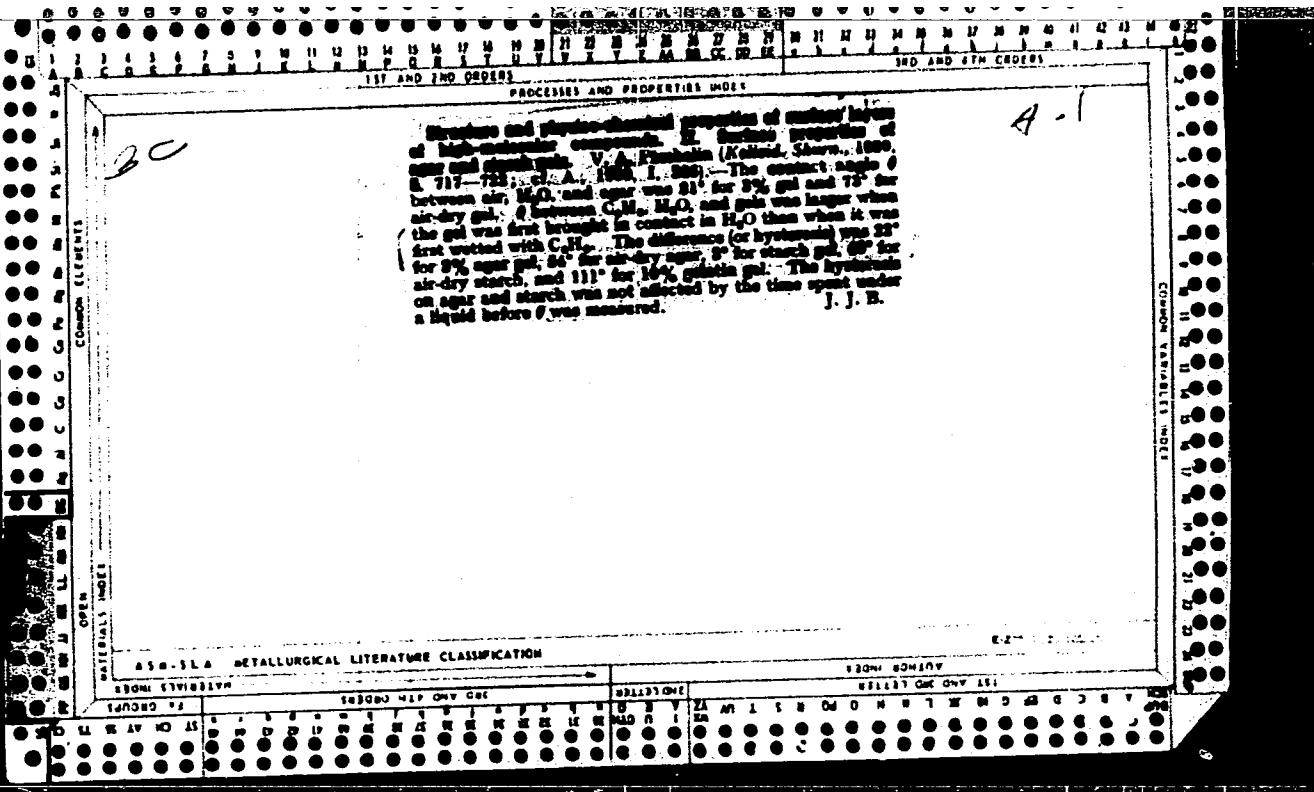
BC

STRUCTURE AND PHYSICO-CHEMICAL PROPERTIES OF SURFACE LAYERS OF SUBSTANCES OF HIGH MOLE. WT.  
III. MOLECULAR STRUCTURE AND SURFACE PROPERTIES OF HAIR AND WOOL KERATIN. V. A. FRASERLIK  
(J. Appl. Chem. Russ., 1959, 12, 1495-1500).—The surface layer of defatted hair (human, horse) is shown by measurement of the angles of contact with H<sub>2</sub>O and C<sub>6</sub>H<sub>6</sub> to be hydrophobic; mechanical removal of this layer exposes a hydrophilic surface. The polar groups of the keratin mol. are therefore oriented towards the interior of the hair. R. T.

A.I.B.-S.I.A. METALLURGICAL LITERATURE CLASSIFICATION

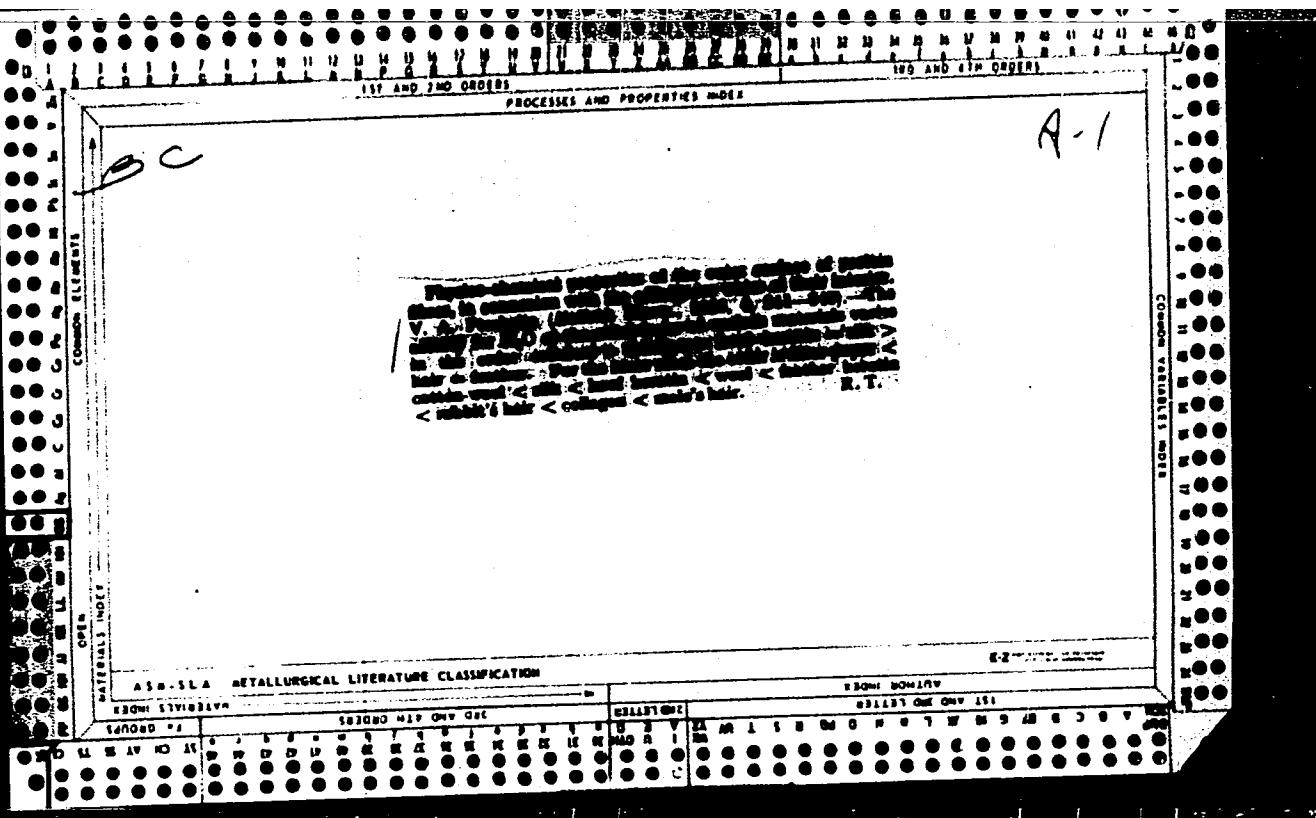
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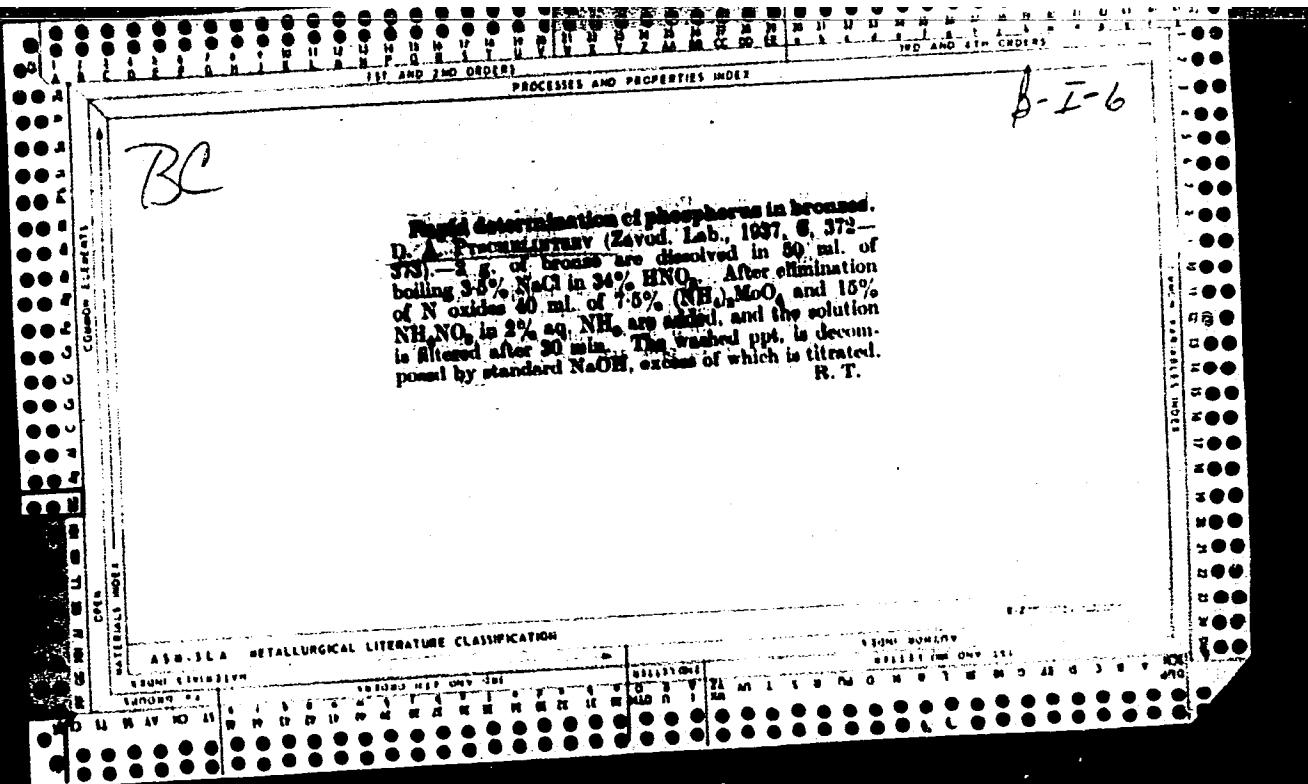
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Ptselin, V.I.

J-3

USSR/Forestry - Forest Economy.

Abs Jour : Referat Zhur - Biologiya, No 16, 25 Aug 1957, 69107

Author : Ptselin, V.I.

Inst : A forest Measuring-Calculating Instrument (LI-VP).

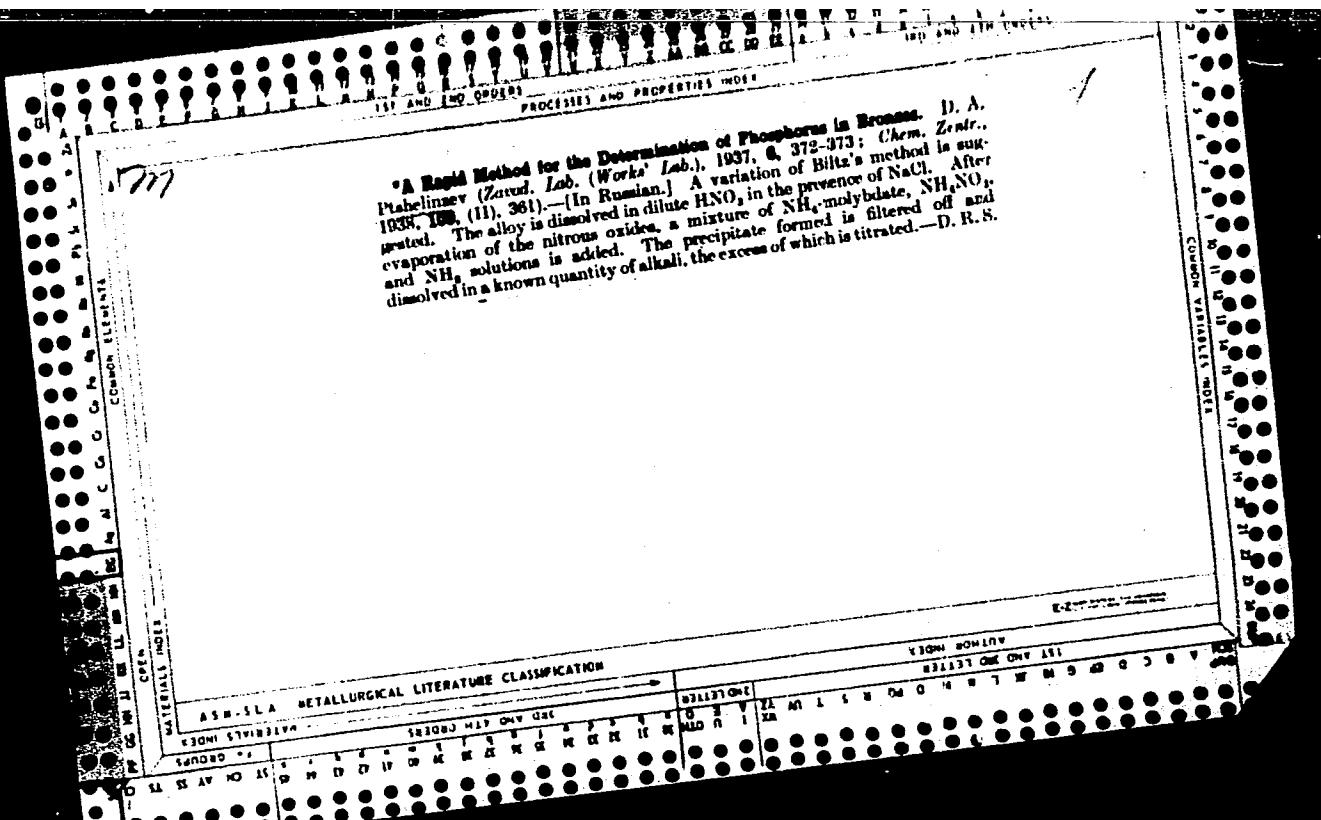
Title : A forest Measuring-Calculating Instrument (LI-VP).

Orig Pub : Sb. tr. Povolzhsk. lesotekhn. in-t, 1956, No 51, 165-172

Abstract : No abstract.

Card 1/1

- 30 -



NEYMAN, G.B., doktor biologicheskikh nauk; VOLKOV, P.A., kandidat tekhnicheskikh nauk; PTSITSYNA, L.V.

Checkrow planting of sugar beets using furrow openers with forced  
dropping and free falling of seeds. Dokl.Akad.sel'khoz.21 no.6:3-7  
'56. (MLRA 9:9)

1. Vsesoyuznyy nauchno-issledovatel'skiy institut mekhanizatsii sel'skogo khozyaystva. Predstavlena akademikom I.V.Yakushkinym.  
(Sugar beets) (Planters (Agricultural machinery))

PTUKHA, M. (U.S.S.R.)

"Methodological Features of the 1959 Census of the Population of the U. S. S. R."  
paper submitted 31st. Session Intl., Statistical Inst., Brussels, 2-8 Sep 58.

Ptukha, M.

2-1-5/9

AUTHOR: Nemchinov, V., Academician; Ptukha, M., Corresponding Member of the USSR Academy of Sciences, and Ryabushkin, T.

TITLE: The Thirtieth Session of the International Institute of Statistics (30-ya sessiya mezhdunarodnogo statisticheskogo instituta)

PERIODICAL: Vestnik Statistiki, 1958, # 1, p 56-62 (USSR)

ABSTRACT: The article deals with the International Statistical Conference from the 8th to 15th August 1957 in Stockholm, Sweden. The authors give an unbiased review of the conference.

The International Statistical Institute has 382 members, two of them, Professor M.V. Ptukha, Associate Member of the USSR Academy of Sciences and T.V. Ryabushkin, leading the statistical sector of the Institute of Economics attached to the USSR Academy of Sciences, are from the USSR. The following socialist countries were represented: USSR, Czechoslovakia, Poland, Rumania, Hungary, Bulgaria and Yugoslavia.

During the conference proceedings 128 scientific lectures were given, 14 of them by socialist scientists from the USSR, Czechoslovakia, Poland, Bulgaria and Yugoslavia. The Soviet

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2-1-5/9

The Thirtieth Session of the International Institute of Statistics

scientists delivered 3 lectures on "The Balance Method in Economical Statistics" (V.S. Nemchinov), "Theory and Practice of the Index Method in the USSR" (T.V. Ryabushkin) and "The Method of Carrying out the Census in the USSR" (M.V. Ptukha).

Discussing matters of mathematical statistics the names of the Academicians A.N. Kolmogorov, S.N. Bernshteyn and of Professor A.Ya. Khinchin were repeatedly mentioned.

The announcement of M.V. Ptukha that the USSR will take part in the world census was accepted with great interest.

AVAILABLE: Library of Congress

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CIA-RDP86-00513R001343520004-9

PTUKHA, M.

26867- PTUKHA, M. D. P. Zhuravskiy kak statistik. Vestnik statistiki, 1949, No. 2,  
S. 37-50.

SO: Letopis' Zhurnal'nykh Statey, Vol. 36, 1949

APPROVED FOR RELEASE: 06/15/2000

CIA-RDP86-00513R001343520004-9"

ITUKHA, M

V

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Ocherki po istorii statistiki v SSSR (Outline on the history of statistics  
in the USSR) Moskva, 1 zd-vo. Akademkniga, 1955-

"v.

Includes bibliographies.

At head title: Akademiya Nauk SSSR.

Lib. has: v. 1

FTUKHA, M. E. P.

26867

Zhuravskiy kak statistik. Vestnik statistiki, 1949, No. 2, S. 37-50  
Terletskiy, P. E. O Metodakh analiza I korektirovaniya dannykh perepisey ob  
etnicheskem sostave naseleniya zarubezhnoy evropy -- sm. 26827

SO: LETOPIS' NO. 34

PTUKHA, M.V., professor; KAGAN, S.S., doktor meditsinskikh nauk, professor.

Over-all morbidity registration method of the Ministry of  
Public Health of the U.S.S.R. Sov.zdrav. 14 no.5:27-32 S-0 '55.  
(MLRA 8:12)

1. Deystvitel'nyy chlen AN USSR, chlen-korrespondent AN SSR,  
zasluzhennyy deyatel' nauki USSR (for Ptukha)  
(VITAL STATISTICS,

morbidity registration system of ministry of health  
in Russia)